CHAPTER 12 Small Business Accounting: Projecting and Evaluating Performance Page 429 LEARNING OBJECTIVES After you complete this chapter, you will be able to: LO 12-1 Describe the basic concepts of accounting. LO 12-2 Specify the requirements for a small business accounting system. LO 12-3 Explain the content and format of common financial statements. LO 12-4 Use accounting information as a tool for managing your business effectively. LO 12-5 Create a set of appropriate budgets that support developing pro forma financial statements for your business plan. LO 12-6 Use accounting information to make better business decisions. Justin Beegel of Infographic World, Inc. • Justin Beegel quit his day job to go full time as an entrepreneur in his bootstrapped business. Within the first year on his own, he got into a position where he did not have enough cash to pay the bills. He had not paid enough attention to record-keeping and reporting systems. He thought, "I'll be out of business in 30 days!" How would you respond to a critical financial position such as Justin's? Infographic World, Inc. Focus on Small Business: Justin Beegel of Infographic World, Inc. Infographic World, Inc.'s story reads like a Hollywood script for a stereotypical "by-his-bootstraps" movie about a struggling businessperson. Justin Beegel, fresh out of Binghampton University with a new MBA to post on his wall, went to work for as the social media manager for Hachette Filipacchi Media—the publishers of Woman's Day, Elle, Road and Track, and Car and Driver magazines.1 While working for Hachette Filipacchi, Justin began working a side gig for extra money. Soon the side gig had grown to the point that he was in effect working two full-time jobs. In an article for the Young Entrepreneur Council (YEC) Justin wrote, "I was working until 6 pm at the day job, and 5 am on the side business."2 Justin quit his day job and went full time into his start-up, Infographic World, Inc. This was a gutsy move—he had no significant savings and took no partners to provide funding.3 And, by his own words, the business very nearly failed soon after start-up. Justin is quoted as saying, "there is no better teacher than failure."4 His first failure in the start-up came within the first year of operation. One day while he was printing invoices from vendors he suddenly realized that he did not have enough cash to pay the amounts that were due. He had largely ignored the need for accurate record keeping and for timely reports to help him direct and control his business. He wrote, "I had virtually no systems . . . to track . . . how much was coming in . . . how much I would need to pay."5 In his desperation Justin turned to his father, who had often been his mentor. With his father's help, he began to make a plan to work himself out of the hole.6 His solution was twofold. First, to address the cash flow problem, he would establish and enforce specific payment terms with his vendors and also with his clients. Second, he would establish the necessary procedures and systems to ensure that he had the information needed to plan, direct, and control the finances of Infographic World, Inc.7 Page 430 Today, some 10 years later, Infographic World, Inc., now renamed IGW, focuses on all things concerned with visual marketing. The company is highly successful, having won many awards for its eye-catching

infographics and visual marketing campaigns. IGW has worked with a wide range of businesses, from newly funded star-ups to Fortune 100 corporations. In 2015 it was named one of Entrepreneur magazine's "30 Startups to Watch." DISCUSSION QUESTIONS Why did Justin Beegel run out of money to pay his bills? What would you do differently from what Justin did when confronted with a financial crisis? Does a good accounting system guarantee entrepreneurial success? In what ways does an inadequate accounting system impede entrepreneurial success?

Why Accounting Is Important for Small Business Success 12-1 Describe the basic concepts of accounting. You probably really dislike having to deal with accounting. This is certainly understandable: You are interested in creating and running a business, and not very interested in spending time dealing with the details of what the business did in the past. You may think, "Time spent on boring accounting tasks could be so much better used for planning and selling your business concept!" You are not alone in having this opinion. Few students of entrepreneurship are fond of the topic of accounting. So why do it? There are several compelling reasons to become familiar with the process and the uses of accounting for small businesses: Investors will not even consider funding your concept unless you provide specific accounting information in an accepted format. Bankers will not loan money to a business that has no formal financial statements. You absolutely cannot know how your business is doing without accounting information. Business planning and controlling cannot be done without accounting information. An essential part of business is generating profits to increase the wealth of its owners. Many businesses have owners who are not active in the running of the business and, because of this, do not have a firsthand knowledge of the profits (or losses) that the business is generating. These owners demand that the owner-managers who are actually running the business provide accurate and timely reports of the operations. Keeping careful records of financial transactions makes it possible for both active and absentee owners to have the information that they need. In addition to owners, there are many other entities that have an interest in the results of the business. These include bankers and other lenders, who want to be assured that the business can repay loans, and governmental agencies that want to ensure that proper taxes are paid and specific regulations are followed. Accounting is an essential tool for successfully doing management tasks. If you do not have a reliable accounting system that produces timely reports, you must rely on guesses and hopes when you make business decisions. Similarly, there is no substitute for having specific performance goals and accurate reports to be able to analyze current operations and make effective plans for future operations. To understand the essential place of accounting in creating and operating a successful small business, we need to see just what accounting really is and

what it really does. The first thing that you need to understand is that there are three types of accounting you will need to use in your business: (1) financial accounting, (2) managerial accounting, and (3) tax accounting. Let's take a look at each of these types of accounting, concentrating on how they are used to help you succeed in your small business. Page 431 Financial Accounting When most people use the term accounting they are really referring to financial accounting, which is based on a set of rules called generally accepted accounting principles (GAAP) that detail specific methods of keeping records of financial transactions; of placing the transactions into categories; and of producing specific financial reports that consist of: (1) How profitable the business is. (2) The value of the things that the business owns and who has a claim on that value. (3) How much and from where money was received and how much and to whom money was paid. These three financial reports are called the income statement, balance sheet, and statement of cash flows, or cash flow statement, respectively. Note that each of these financial reports presents information about things that have already happened. Product and services were sold. Various expenses were incurred. The difference between the amount of sales and the amount of expenses is the profit of the business. Things were acquired so that the business would be able to provide product and services to customers. Cash was collected and paid out. But all of these things happened before the financial statements were created. So you might ask, "If financial accounting deals only with things that have already happened, just what use can it be to me?" The short answer is that financial accounting does not have a lot of value for running the day-to-day activities of a business. Financial accounting was created and is conducted for the benefit of owners of the business who are not involved in the management or operations of the business. In other words, financial accounting is for investors and financers, not for managers. But you are more than a manager, you are also both an owner and an investor. As owner, investor, and manager, financial accounting information is relevant to many tasks that you must perform such as convincing people to invest in your business or convincing bankers to loan money to your business. Managerial Accounting Managerial accounting has very little resemblance to financial accounting except for the case when managerial accounting is being used for planning future business operations. Managerial accounting is forward-looking where financial accounting is concerned only with the past. Managerial accounting has no set of formal rules. In fact, managers may do any accounting process, any analysis, any forecast that they please. The issue is not what is permissible. The issue is what is valuable. If the benefit of any managerial accounting task is greater than the cost of doing that task, then it should be done. One of the most valuable functions of managerial accounting is planning for future business activities. This is done through a process that is often called standard budgeting, or profit planning. Because managers are familiar with the format of accounting statements, these plans usually are produced so that they look very much like an income

statement, balance sheet, and cash flow statement. This method of organizing and formatting business planning is called pro forma financial statements. However, the final product of this process is not just a spending plan as you might make for your family. Rather, it is a detailed plan for future operations and is the standard against which actual results are compared to assess the performance of individual managers, operations, departments, and divisions. We will examine the details of business planning later in this chapter. Tax Accounting Tax accounting is done by following the tax laws and regulations that are made by various governments. The final product of tax accounting is a set of returns, forms, and schedules. There are many different business taxes, including federal income tax, state income tax, employment taxes, inventory tax, excise taxes, and various use taxes including sales tax and, in some countries, value-added tax. The primary value of tax accounting for a business is to avoid penalties for noncompliance and to legally minimize how much money it has to pay in taxes.

The Concepts That Make Accounting Work Financial accounting, which is what most people mean when they use the term accounting, is based on just a few basic assumptions that have been developed over thousands of years. We have 8,000-year-old accounting records from Mesopotamia. The Greeks and the Romans each had detailed rules for accounting to be sure that the proper taxes were paid. But accounting as we do it today really began about 600 years ago in the trading city-states of what is now Italy. The oldest textbook of accounting principles like those in use today is the Summa de Arithmetica, Geometria, Proportioni et Proportionalità, written by Luca Pacioli and published in 1494. The Summa, pictured here, is probably the most expensive accounting textbook in existence. A copy was recently listed on Biblio.com for a mere $200,000. • First Edition of the Summa de Arithmetica UtCon Collection/Alamy Stock Photo The assumptions that underlie accounting are very basic: A business is an entity that is separate from its owners. An operating business will continue in business. Accounting information is valuable only if it is useful for the owners and managers of the business. Creditors (lenders and suppliers) have claim on business assets that must be satisfied before any claim of an owner. The claims of creditors and owners cannot be greater in total than the asset value of a business. This is called the accounting equation, and is explained below. Let’s consider each of these assumptions, then see how they combine to form the system of accounting that is in use across the world today. Business Entity Concept Because of the business entity concept, it is possible to separate business transactions from your own personal transactions. Thus, we can distinguish between money that your business borrows, and money that you borrow for personal needs. It is the business entity concept that underlies the legal forms of establishing businesses such as corporations, limited partnerships, and

limited liability companies. (These are explained in detail in Chapter 17.) The business entity concept is implicit in all business regulation. Violating it can be a criminal offense. As detailed in the Small Business Insight box, Mr. Padilla learned this the hard way. He carelessly accounted for funds that he had received for specific business purposes. In doing so, he "mixed" the investors' money into money that he held in his personal bank accounts. This practice is called commingling and although it is not uncommon in small businesses, it really should not be done. While there is no specific law prohibiting such commingling, it can be used in court as evidence of an intent to defraud. SMALL BUSINESS INSIGHT Does It Belong to the Business, or Is It Mine? Mauro Padilla III, a San Antonio, Texas, builder, ran afoul of the law because of bad accounting, said his lawyer Adam Cortez.8 U.S. Attorney James Blankinship agreed, writing in a presentencing court filing that more than $18 million of down payments and loan proceeds from different projects had been commingled with Padilla's own funds to the point that it was impossible to determine from the bank records what belonged to Padilla and what belonged to the various projects. • Mauro Padilla III leaving the federal courthouse in San Antonio, Texas. JOHN DAVENPORT, SAN ANTONIO EXPRESS-NEWS Cortez conceded that there should have been better segregation of the funds. But he also maintained that the failure was, in his words, "not a federal crime . . . just bad accounting."9 In this case bad accounting, specifically not keeping a "bright line" between business funds and personal funds (a violation of the business entity concept), led to very serious results. Padilla received a 12-year prison sentence, 5 years of supervised release, and was ordered to pay more than $6 million in restitution to banks and investors.10 Going Concern Concept The assumption that a successful business will stay in business enables long-range planning and strategy. Accounting assumes that this year's business results will affect next year's, and that the intent of business is to make money over a period of many years. The going concern concept also implies that, as a separate entity, the business may continue in business even if it is sold to other owners. Qualitative Characteristics of Useful Financial Information The Financial Accounting Standards Board (FASB) is the body that establishes and maintains standards for financial accounting. Its publication, Statement of Financial Accounting Concepts No. 8, published in August of 2018, states in part that useful accounting information is "relevant and faithfully represent(s) what it purports to represent." The Statement further holds that usefulness of of the information is enhanced "if it is comparable, verifiable, timely, and understandable."11 Page 433 The Greater Claim to Assets of Creditors Laws regulating the disposition of the assets of debtors were developed in medieval Italy. At that time, the concept of corporations had not yet been developed, and thus all owners of a business were individually and as a group responsible for repayment of loans. The early Italian laws, developed primarily in Venice and Genoa, allowed creditors to seize the assets of the debtor-owners, sell the assets, and satisfy the claims of the

creditors. If any money was left over after the claims were satisfied, it was returned to the debtor-owners. This basic process is still followed today, some 600 years after it was invented. Page 434 The Accounting Equation Financial accounting is based on a very simple equation called the accounting equation. The equation follows logically from the assumptions discussed in the paragraphs, above. If the business is an identifiable entity that exists apart from its owners, then the value of the business is the sum of the values of everything the business owns. The name for what a business owns is asset. Owners of a business do not own the assets of the business. The business itself owns them. Rather, the owners of the business have a claim on the assets of the business. This claim is called owners' equity. This does sound unnecessarily complicated. The best way to explain it is by using a simile. A business can be thought of as a container that holds (1) the money provided by owners, (2) things that the business has bought or built, and (3) things that the business controls because of contracts and laws. Look at the illustration below. The box represents the business Red Jett Sweets, Inc. This box (the business) currently holds $50,000 of cash, which was given to the business by the business' co-owner, Christina Meyer. Christina does not own the money any longer. She gave that money to the business. Christina has a claim on the value of the money and that claim is called equity. FIGURE 12.1 Business as a Container of Asset Courtesy of Natalie Gamez Meyer The Balance Sheet Remember, this is only a simile. Real businesses are much more than cardboard boxes and entrepreneurial owners are much more than sources of money for the business. Also, the accounting report does not look anything like the cartoon. For example, the balance sheet to report the equity transaction between Christina and Red Jett Sweets would look like this: Page 435 Of all the concepts and ideas of accounting, the accounting equation is the simplest, but least understood. The entire system of accounting entries, reports, and financial statements is developed from this simple equation. The accounting equation is the method that is used to place these records into understandable categories that are useful for managing your business. Up to here, we have seen the term liabilities but it has not been defined. To complete the discussion of the use of the accounting equation you need to understand the meaning of liabilities. Liabilities are legally enforceable obligations that will require the business to give up assets or to forego receiving assets in the future. Again, this probably make more sense if we use the earlier simile. Suppose that Red Jett Sweets begins business. The managers make a decision that to conserve limited cash, the mobile cupcakery food truck will be purchased using a loan from a bank. Red Jett negotiates a contract to purchase the cupcakery for the expected $29,000, but borrows $23,000 to complete the transaction. At the same time, management acquires bakery equipment by paying $2,500 cash. How does this show up in Red Jett's balance sheet? As you can see, Red Jett had to make a down payment of $6,000 to buy the food truck. At the same time, the bank provided $23,000 which was immediately paid to

the seller of the truck. This leaves Red Jett with $44,000 in cash and the owner of a long-term asset (the food truck) with the value of $29,000. The bank's claim on the assets of Red Jett is in the amount of $23,000 and is listed as a long-term liability. Red Jett still has a $50,000 claim on the assets of Red Jett made up of the $6,000 equity in the truck, $2,500 of bakery equipment, and the $41,500 in cash. The important thing to consider is that the sum of the assets of the business, or $73,000, is exactly equal to the sum of the claims of the creditors and the owners. Costs, Revenues, and Expenses To explain revenues and expenses it is best to continue our example. Suppose that, having started the business and purchased inventory, Red Jett now purchases raw materials for a total price of $2,040 on account, then bakes and sells 3,000 cupcakes at $2.75 each on account to a local group for the group's spring fund-raiser. Recognize that no cash has changed hands. Red Jett purchased supplies on account which means that the company is allowed to take the goods and to pay for them later, usually within one month. Similarly, Red Jett sold the cupcakes on account which means that the buyer was allowed to take the cupcakes and has promised to pay for them in the future. Page 436 Red Jett Sweets received raw cupcake ingredients and gave up a promise to pay for them within a month. The company then turned around and received the customer's promise to pay and in exchange gave up the completed cupcakes. In accounting terms Red Jett has incurred an expense, called cost of goods sold in the amount of $2,040 and realized a revenue in the amount of $8,250. The difference between the revenue and the expense is a profit of $6,210, which will be reported on the balance sheet as retained earnings. Now we can see the differences among costs, revenues, and expenses. Costs are the value of whatever you give up to get what you need or want. Revenue is an increase in owners' equity that is the result of selling your product or service. Expenses are reductions in owners' equity that recognize the value of goods (inventory) and services (labor) used to produce your product or service. Let's suppose that Red Jett collects the invoice due from its customer and pays the bill that it owes to the manufacturer. If it were to use the balance sheet format to record these transactions, the balance sheet would look like this: Page 437 As you can see, this balance sheet is getting really messy. If we continue to record transactions in this way it will soon be nearly impossible to understand. Just imagine a year's worth of sales and expenses being recorded as in the previous example. So, as a matter of practicality, transactions are not actually entered directly into the balance sheet. Rather, we create an account. An account is simply a record of transactions that are similar in nature. Thus we have an account for sales revenue where we record each sale as it is made. Similarly, we have an account for wage expense in which we record wages as they are incurred. At the end of the accounting period, whether it is a day, a month, a quarter, or a year, we simply add up all revenues and all expenses. We then subtract expenses from revenues and the remainder is our profit (or our loss if it is a negative number). The accounts that are not

revenue and expenses (such as cash, accounts receivable, notes payable, etc.) are called permanent accounts and are kept in balance all the time. So, at any time the receivables account, for example, will show the sum of all credit that has been given to customers and all collections that have been made from customers. Why Do Accounting? There are only two reasons to do accounting: first, to produce information that is useful to you for managing your business; and second, to meet legal or contractual requirements. To be useful, information must be accurate and relevant.12 One way to help ensure that your accounting information is accurate is by using a computerized accounting program, as discussed in the following section. Relevance of information must be evaluated for each decision as it is made. If having the information helps you make a smarter decision, a faster decision, or a decision you feel more comfortable about, then the information was relevant. Skill Module 12.1 illustrates the issues discussed in this section. SKILL MODULE 12.1 Why Does Accounting Matter? Suppose you are operating a buffalo wings restaurant, and you purchase a high-capacity fryer. You have estimated the following costs of operating your restaurant for one month: Variable costs: Food (chicken, potatoes, etc.) $15,000 Beverages (soda, tea, beer) 4,500 Supplies (napkins, cleaning materials, etc.) 2,000 Labor 21,600 Total monthly variable costs $43,100 Fixed costs (rent, insurance, depreciation, etc.) $21,900 Now suppose that you are currently using a battery of three fryers that you originally bought used for $4,000. Because the purchase price was small, you recognized the entire $4,000 cost of the fryer as an expense in the year it was purchased. The Vulcan representative is trying to sell you a new four-basket computer-controlled battery fryer. The purchase price is $25,000 and the costs of shipping, installation, and testing will be $5,500. The representative has shown you how the new fryer, because of its improved insulation, safety features, and cooking capacity, will save you $1,000 per month in reduced electricity use and lowered insurance premiums. The fryer also has much greater capacity than the one you are currently using, so you will be able to cook more wings and serve more people. Page 438 You have spoken with your accountant, and she told you that for tax purposes the fryer will have to be depreciated in six years, using the five-year MACRS rate set by the IRS. The amount of depreciation expense you will recognize will be as follows: Year Depreciation 1 $6,100 2 9,760 3 5,856 4 3,513 5 3,513 6 1,758 What is the cost of buying the new fryer? How will your expenses change if you buy the fryer? How will your fixed costs per year change if you buy the fryer? If you predict that sales will increase by 10 percent per year, should you buy the fryer? Suppose that your accountant called you and said that the fryer could be depreciated for seven years, using straight line depreciation of $4,357 per year for the first six years and $4,358 in the last year. Would this change your decision of whether to buy the fryer? Under what conditions is the amount of depreciation expense relevant to deciding whether to buy the fryer? Your instructor may provide you with a suggested solution for this skill module. Accounting Systems for Small Business 12-

2 Specify the requirements for a small business accounting system. The primary reason to acquire and use a computerized accounting system is to ensure the accuracy of your accounting information. Computerized systems also simplify the accounting process by providing automatic error checking, entry screens that look like the common business forms, and automatic production of financial statements and management reports. The small business systems that are most commonly being used in the United States today are QuickBooks, Xero, MYOB, Sage BusinessWorks, and Microsoft Dynamics.13 That said, the market for computerized accounting programs for small businesses is in a state of turmoil. The entry of cloud-based accounting programs which are paid for on a subscription basis has changed everything. This revolution, if not begun by, was at least accelerated by Xero, which is based in New Zealand. Founded in 2006, the company today claims over 600,000 paid users. It also claims to have a dominant market share in Australia, New Zealand, and Great Britain. However, Xero also has a significant user base in the United States.14 Its rapid entry prompted Intuit, the owner of QuickBooks, to completely overhaul its own online accounting program to be competitive.15 Key Software for Small Business Accounting Systems QuickBooks (www.quickbooks.com/) Xero (www.xero.com) MYOB (www.myob.com) Sage BusinessWorks (www.sage.com) Microsoft Dynamics (www.microsoft.com/en-us/dynamics/erp-gp-overview.aspx) Page 439 The market for accounting programs is highly concentrated. QuickBooks is reported to have approximately 75 percent of the market for accounting systems for small business. The remainder of the market is divided among at least 75 different computerized accounting programs, ranging alphabetically from Accounting Edge to Zoho Books.16 And the number of entrants is growing. So you now have options for small business accounting systems ranging from free-to-use cloud-based open-source programs (GnuCash, SQL-Ledger, xTuple PostBooks, etc.) to mammoth enterprise resource planning systems such as Oracle ERP Cloud and SAP Business One. The cost to use the programs ranges from free for the open-source programs, to less than $10 per month for programs like Xero, to thousands of dollars for the large ERP systems. All of these systems will more or less automatically produce financial reports that meet legal requirements for content and format. Still, as with any computer program, you will have to invest some time in learning to use it effectively. All of these accounting programs are user-friendly, although each has its irritating quirks. They can be mastered in a short time, generally a matter of a few hours. Most community colleges offer night and weekend classes in QuickBooks and Sage Accounting, and you may have (or have even taken) similar courses at your school. There are also numerous online sites that offer tutorials. Each program itself includes a tutorial, help files, and a printed manual to help you master its use. LEARN MORE ONLINE Learn more about the topics above at these sites: QuickBooks: https://quickbooks.intuit.com/tutorials/all-quickbooks-tutorials/ Xero: www.xero.com/us/training/small-business/ MYOB: https://academy.myob.com/ To ensure

that your accounting information is accurate, reliable, and useful, the accounting system that you choose should easily and efficiently accomplish the following tasks: Provide a simple, easy-to-understand user interface. Have an exhaustive context-sensitive help function. Produce an income statement that clearly lists revenues and expenses by appropriate categories for your industry and type of business. Produce a classified balance sheet that clearly shows the financial position of your business. Facilitate the development of a cash budget. Facilitate the task of developing operating and investment budgets. Produce financial statements in approved formats to be furnished to outside investors, bankers, and regulators. Produce multiple-year comparison financial statements for management use. Provide a method for you to define and produce custom reports to meet your management needs. Be able to export financial data in a form that can be used by your accountant and can be imported into tax preparation and spreadsheet programs. Maintain an internal "audit trail" that records all entries and changes to the accounting system in order to facilitate the identification and correction of errors. Enforce security measures to reduce the opportunity for employee misuse or fraud. Have provisions that will either allow the program to grow with your business or to easily export its data into programs that can handle larger businesses.

Setting Up an Accounting System Your specific accounting needs are largely determined by the industry you're in and by the size of your business. The smallest businesses often need little in the way of accounting records beyond an accurate check register. As businesses become larger, the difficulty of any one person being able to remember all its details increases exponentially. When a business is large enough to have one or more employees, formal record keeping is a must. Page 440 Regardless of your business's size, the one essential element of an accounting system is cash accounting that is accurate, easy to use, and tracks all checks written and all deposits made. As your business grows the following accounting functions will become important to your success: Accounts receivable records if you provide credit to your customers. Accurate and timely accounts receivable records are essential for making decisions concerning the extension of credit. Accurate records also help produce accurate billing of customers, and thus help maintain good customer relations. Accounts payable records to track what you owe and to make timely payments in order to capture prompt pay discounts and to maintain a good credit rating for your business. Payroll records to ensure that payroll and employment taxes are kept current. Fixed asset accounting that automatically calculates and accumulates depreciation. Inventory accounting that facilitates maintaining the appropriate levels of

inventory and aids in calculation of appropriate stocking and reorder levels. Credit card sales function to enable reconciling your sales records with the amount of discount and chargebacks taken by your credit card provider. Insurance register to ease the problems of keeping necessary insurance coverage current and in force. Investment records if your business keeps surplus cash invested in securities. Leasehold records if your business has made improvements to leased property or equipment. The actual task of setting up a computerized accounting system for your business is quite easy if you understand accounting a bit. You do not need to be an expert. The small business accounting systems listed earlier include all the functions that you are likely to need. Additionally, each program has a method to establish a set of records that is appropriate for your specific business. Should you have a business that is unique, setting up a set of records from scratch usually takes less than an hour. QuickBooks and Sage Accounting each include an "interview" function that will guide you through the setup process by furnishing a series of questions and prompts. But what if you are not sure that you can set up an accounting system properly? You can get help for free from your local Small Business Development Center (www.sba.gov/tools/local-assistance/sbdc) or SCORE (the Service Corps of Retired Executives, www.score.org/). Alternatively, for a small fee (generally $200 to $1,000) many certified public accountants (CPAs) will set up any of these accounting programs for your specific needs. You can find CPAs in your phone book (hard copy or online) or even through Google searches for "accounting consultant." As when you choose any other professional (such as doctors or lawyers), it makes sense to check with others about a professional before making a major commitment. Setting up your accounting system can be outsourced to consultants who are expert in the accounting system you chose. QuickBooks has an online directory of certified consultants. The directory (http://proadvisor.intuit.com/search/index-standalone.html?v2#/) can be searched using your zip code and the distance you are willing to go to find a consultant. Sage offers a similar service (www.sage.com/us/accountant/locator), but lists consultants as being expert in either accounting, the Sage accounting application, or both. As with the QuickBooks site, search is done by zip code and distance. Microsoft also provides a guide to consultants for Dynamics (www.microsoft.com/en-us/dynamics/partners.aspx). As you might expect given the cost and complexity of Dynamics, the Microsoft site allows you to search not only by zip code and distance, but also by your business need and industry. If you are still not sure about which consultant you need, Microsoft provides a page for you to complete and then the company will match you with a consultant who has the expertise you need. One-Write does not provide information about consultants for its accounting programs, but a Google search returned almost 400,000 "hits." Be aware that there is no standard pricing for consultant services so you will have to do some comparison shopping and perhaps some negotiation to retain the right consultant for your accounting needs.

Summa de Arithmetica geometria. Proportioni: et proportionalita:

Nouamente impressa per Paciolano su la riua del Benacense et unico carptonista Laco: Amenissimo Sito: de li antique et evidenti ruine de la nobil cita Benaco dicta illustrato: Cum numerosita de Imparcoli epitthaphij di antique et perfette littere sculpiti dotato: et cus finissimi et mirabil colone marmoree: innumeri fragmenti di alabastro porphidi et serpentini: Cose certo lector mio diletto occulata fide nuratu digne sot terra se ritro uano.

Continentia de tutta lopera:

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Proportioni e pportionalita a notitia del 5º de Euclide: e de tutti li altri soi libri.
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Partir: multiplicar: sūmar: e sotrar de le pportioni: e de tutte sorti radici.
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Evidentie generali: ouer conclusioni numero. 66. absoluere ogni caso che per regole ordinarie non si podesse.
Tutte sorte binomij e recīti: e altre linee irrationali del decimo de Euclide.
Tutte regole de Algebra ditte de la cosa e lor fabriche e fondamenti.
Cōpagnie in tutti modi: e lor partire.
Socide de bestiami: e lor partire.
Fitti. pescioni: cottimi: liuelli: logagioni: e godimenti.
Baratti in tutti modi semplici: composti: e col tempo.
Cambi real: secchi: fittitij: e diminuti: ouer communi.
Meriti semplici e a capo danno: e altri (termini
Resti: saldi: sconti: de tēpo e denari: e de recare a vn di piu partite.
Ori: argenti: ellozo affinare: e carattare.
Molti casi e ragioni straordinarie: varie e diuerse a tutte occurrētie: cōmo nella sequente tauola appare ordinatamente de tutte.
Ordine a saper tener ogni cōto: e scriptura: e del quaderno in vinegia.
Tariffa de tutte vsanze e costumi mercanteschi in tutto el mondo.
Pratica e theorica de geometria: e de li cinq corpi regulari: e altri dependenti
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The Business
RED JETT Sweets
$ 50,000.00

OWNER

RED JETT Sweets

Fort Worth, Texas
Balance Sheet as of January 1, 2011

Assets		Owners' Equity	
Cash	$50,000	Common Stock	$50,000

RED JETT Sweets

Fort Worth, Texas
Balance Sheet as of January 31, 2011

Assets		**Liabilities**	
Current Assets		**Current Liabilities**	
Cash	$41,500		- 0 -
Long-Term Assets		**Long-Term Liabilities**	
Bakery Equipment	2,500	Long-term loan	$23,000
Mobile Food Truck	29,000		
Total Long-Term Assets	31,500	**Owners' Equity**	
		Common Stock	$50,000
Total Assets	$73,000	**Total Liabilities & Equity**	$73,000

RED JETT Sweets

Fort Worth, Texas
Balance Sheet as of January 31, 2011

Assets		**Liabilities**	
Current Assets		**Current Liabilities**	
Cash	$41,500	Accounts Payable	$ 2,040
Accounts receivable	8,250	**Long-Term Liabilities**	
Total Current Assets	49,750	Long-term loan	$23,000
		Total Liabilities	25,040
Long-Term Assets		**Owners' Equity**	
Bakery Equipment	2,500	Common stock	$50,000
Mobile Food Truck	29,000	Retained earnings	6,210
Total Long-Term Assets	31,500	**Total Equity**	56,210
Total Assets	81,250	**Total Liabilities & Equity**	81,250

RED JETT Sweets

Fort Worth, Texas
Balance Sheet as of February 28, 2011

Assets		Liabilities	
Current Assets		Short-Term Liabilities	
Cash	$41,500	Accounts Payable	- 0 -
Plus invoice collected	8,250		
Minus bill paid	(2,040)	Long-Term Liabilities	
Total Cash	47,710	Loan on food truck	23,000
Accounts receivable	- 0 -		
Inventory	- 0 -		
Total Current Assets	$47,710	Total Liabilities	$23,000
Long-Term Assets		Owners' Equity	
Bakery Equipment	2,500	Common stock	50,000
Mobile Food Truck	29,000	Retained earnings	6,210
Total Assets	$79,210	Total Liabilities & Equity	$79,210

Financial Reports 12-3 Explain the content and format of common financial statements. The final output of a computer system is a set of financial statements and reports. Although there is certainly room for you to customize financial reports in many ways, the overall content and form of financial statements have been made standard by long usage. Bankers and investors are familiar and comfortable with standard financial statements. When you apply for a loan or seek equity investment, you will be expected to present financial information in the format and containing the information that is standard for your industry. There are six common financial statements: Income statement Statement of comprehensive income Statement of retained earnings Statement of owners' equity Balance sheet Cash flow statement17 While there are six financial statements, most small businesses will actually use only three: (1) income statement, (2) balance sheet, and (3) statement of cash flows. The statement of comprehensive income will apply to your business only if you deal in financial derivatives. The statements of retained earnings and

owners' equity are usually simply incorporated into the balance sheet. To the uninitiated these financial statements can seem almost as strange as Egyptian hieroglyphs, but in reality each type is similar in concept and operation to financial records we use in everyday life (see Figure 12.2): FIGURE 12.2Everyday Financial Documents and Similar Financial Reports Think of your checking account or the account tied to your debit card. You put money in and write checks or use your debit card to take money out. The record of the deposits and withdrawals are similar to the format of the income statement. The exact amount you have in the account at any moment depends on the deposits credited to your account (which can take anything from minutes to days, depending on how you made the deposit and the speed of your bank) and which checks have been handled by the bank. Figuring that exact amount (which some people do with their check registers or by keeping a running tally in their heads) is the idea behind the statement of cash flow. Page 442 The monthly bank statement gives you the check and deposit information as well as any fees the bank charged you or interest it paid into your account. That parallels the statement of retained earnings. When you apply for a student loan or for a loan to purchase a car, you must fill out a loan application. This form asks you to list what you own and how much it is worth. It also asks you to list all debts you owe to others. This is very similar to the balance sheet on which financial accounting is based. The important thing about these financial statements is that they articulate, that is, information flows from the income statement through the statement of retained earnings, the statement of owners' equity to the balance sheet. Information from the income statement and the balance sheet flows to the cash flow statement. To illustrate the content and format of the financial statements, we will use the Red Jett Sweets, Inc. business plan projections for its first year of operation, 2011. Later in this chapter and in Chapter 13 we will use projections that we have created to show you how to create financial projections. These illustrations are based on Red Jett's business plan except that we have, for illustration only, added an assumption that Red Jett will maintain a beginning and ending inventory of raw materials (flour, sugar, butter, etc.). This added assumption is being made solely for the purpose of being able to demonstrate budgeting techniques when inventories are part of your business. Income Statement The income statement is the primary source of information about a business's profitability. The income statement shows the amount of revenues earned minus its expenses which equals net income: Revenues – Expenses = Net income All income statements follow the same simple general format. Reading from the top down, the income statement presents answers to the questions shown in Figure 12.3. FIGURE 12.3Organization of the Income Statement Question Income Statement Content How much did the business sell? Sales minus What did the product sold cost the business? Cost of goods sold equals How much is available to pay expenses and pay profits? Gross margin minus How much did the business use in its operations? Operating expenses equals How much income did the

business produce? Operating income minus What costs did the business have for financing? Interest expense equals How much income did the business earn before taxes? Net income before tax minus How much tax must the business pay? Income tax equals How much profit did the business make? Net income Page 443 The usefulness of the income statement for managing a small business is related to the amount of detail available in the statement. There are two formats for income statements: (1) a single-step format, illustrated in Figure 12.4A, which provides little detail—it simply lists all revenues and gains together, then lists all expenses and losses together; and (2) a multiple-step format, illustrated in Figure 12.4B, which lists revenues from operations separately from other income and gains. FIGURE 12.4ATypical Single-Step Format Income Statement FIGURE 12.4BTypical Multiple-Step Income Statement Most owners and managers of small businesses prefer the multiple-step format because of its greater detail. Notice that in Figure 12.4B operating loss of $17,003 is reported separately from any nonoperating gains or losses. The two most commonly used computerized accounting systems for small businesses, QuickBooks and Sage Accounting, produce income statements in the multiple-step format by default. Page 444 Difficulties in Understanding the Income Statement There are two typical difficulties that arise in understanding and interpreting the income statements. First, there are disagreements about what exactly should be reported as revenue. The second problem arises from disputes over when to recognize revenues.18 Suppose your business is a water park that is open for only 120 days between June and September. In late fall you run a promotion to sell season tickets as holiday gifts. Through this promotion, you sell for cash $200,000 worth of season tickets. Have you realized a revenue? No, to be recognized as revenue, you must have earned the money. This means that even though you have $200,000 in your bank account, it really isn't yours until the holders of season passes use them to visit the park. In fact, the amount of the season passes would be shown on your balance sheet as a liability—you owe the pass holders either access to the park or their money back. Similar problems arise in determining the amounts and timing of gains, losses, and expenses. Suppose your business sells motor scooters. Customers who buy one will expect to receive a warranty. If they have a problem within the warranty period, they will expect that the scooter will be promptly repaired or replaced. So how much expense should you recognize for warranty? And when should you recognize it? When you sell the scooter, or when it comes back for repair? The amount of warranty cost and the timing of returns are not known at the time of sale. Despite the difficulties and limitations of the income statement, it provides valuable information. Most small businesses do not have any difficulty deciding how much and when revenues and expenses occur. In many small businesses, all sales to customers are made either for cash or as credit card transactions that are essentially the same as cash. Subscriptions and warranties are not an issue. So in many cases, the income statement of a small business is

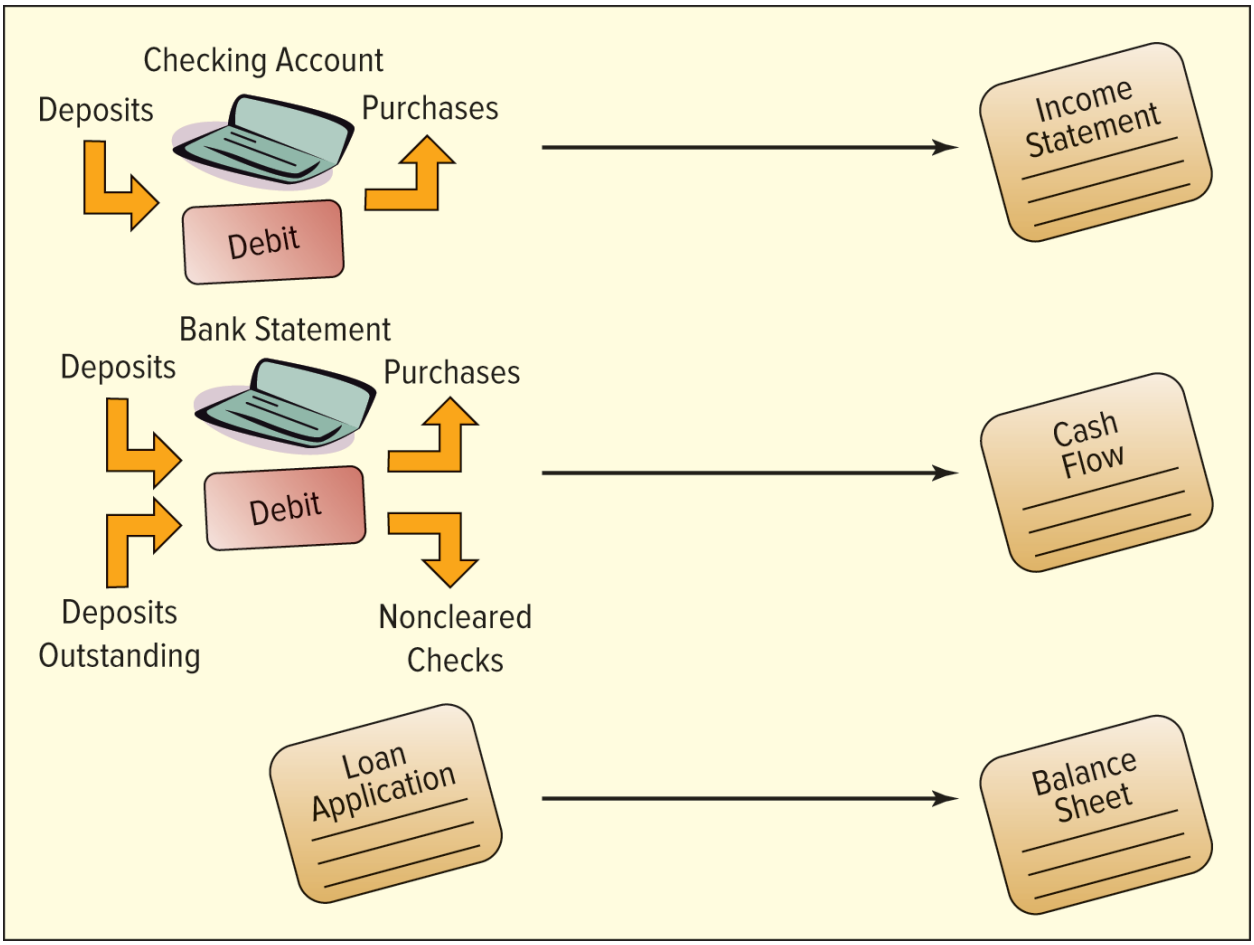
a reliable report of just how well the business is doing in producing profits. Use of the Income Statement The income statement is used by you, by lenders, and by investors to analyze the effectiveness of business operations. Operating income is the most used item on the statement. It represents just how well management achieved sales and controlled costs to produce profits. Lenders use operating income as a measure of how much debt a business can support. Interest is deductible for determining income tax, therefore net income before tax is available to make interest payments. Equity investors similarly look to operating income as an indication of future sales, so operating income becomes a favorite indicator of the value of their investment. Because the income statement is of great interest to owners, investors, and lenders, it is often deliberately misstated. The Small Business Insight box illustrates how easily the income statement can deliberately made misleading. Certainly, such manipulation of the income statement is unethical. If done with intent to defraud, it is illegal. SMALL BUSINESS INSIGHT . . . But Is It Right? ETHICAL ISSUES WITH THE INCOME STATEMENT The characteristics that sometimes make the income statement hard to understand also provide temptation to "fudge" the numbers. Consider the example of a water park in the previous section. If you are applying for a loan to install a new water slide, you can easily "clean up" your financial statements to appear to be a better credit risk. How? It's easy. Just state the $200,000 of advance sales as being a revenue. You instantly reduce the amount of liabilities and simultaneously increase owners' equity. Here is an example: Of course, any change in your financial statements has many implications; consider what effect changing your income statement from a loss of $10,000 to a profit of $190,000 would have on income taxes. In this case you would end up paying taxes on $190,000 in the current year. This would be a very expensive way to get a loan. It could work the other way, though. You could immediately recognize warranty expense, for example, and reduce stated income and thus the amount of tax due. But remember: the IRS takes a dim view of manipulating your financial statements to reduce your income tax. So, the question remains, "Just because you can make your business results look better, should you?" Balance Sheet The balance sheet, also called the Statement of Financial Position, presents a "snapshot" of the financial holdings and liabilities at the close of business on a specified date. The balance sheet explicitly details the accounting equation for your business. The balance sheet provides answers to the questions shown in Figure 12.5. FIGURE 12.5Organization of a Typical Balance Sheet What does the business own that can be turned into cash in one year? Current assets plus What does the business own that will produce revenues for more than one year? Fixed assets plus What other things does the business own (investments, patents, copyrights)? Other assets equals What is the value of everything the business owns? Total assets plus What does the business owe to others that must be paid within one year? Current liabilities plus What does the business owe to others that must be paid more than one year from now?

Long-term liabilities plus How much is the business worth to its owners? Owners' equity equals Does the total of liabilities and equity equal total assets? Total liabilities and equity The usefulness of the balance sheet is determined by the detail it includes. As shown in Figure 12.5, the minimum level of detail is to report both assets and liabilities in two categories: current, which will either produce or use cash within a year, and long term, which will convert to cash over a period of time greater than one year. However, your balance sheet may be made in greater detail if there is a need to do so. A common practice is to present multiyear balance sheets to facilitate analysis. Figure 12.6 shows the most common format for single-period balance sheets. FIGURE 12.6Typical Balance Sheet Page 446 Use of the Balance Sheet The information in the balance sheet is used to determine the liquidity, financial flexibility, and financial strength of the business, which are detailed below. These measures of a business's financial position are used by owners, lenders, and equity investors in making financial and investment decisions. Page 447 Liquidity is a measure of the expected time before an asset can be converted into cash, and of the expected time before a liability must be paid. A completely liquid asset is one that can be converted instantly to cash, at its full value.19 Cash is the most liquid of assets, as it does not have to be converted. An illiquid asset cannot be sold quickly without suffering a significant discount from its true value. Specialized machinery is not a liquid asset. Certainly, given enough time, specialized machinery that is not technologically obsolete can be sold. However, it is not likely to be sold quickly, and is quite likely that when sold, it will sell for only a portion of its true value as a productive asset. Think of a hot rod automobile. You might spend $20,000 or more building it. But if you must sell it, you are unlikely to get more than a tiny fraction of your cost. The same is true for any custom asset, and the more illiquid it is, the greater the discount. Liquidity is a measure of the ability of a business to meet both short-term and long-term obligations. Lenders are concerned with liquidity because it indicates the level of risk that a loan will not be repaid as contracted. Equity investors are concerned with liquidity because it affects a business's ability to pay dividends. The most common ratio used to estimate liquidity is the current ratio. The current ratio is calculated by dividing the value of current assets (those assets expected to be converted to cash within one year) by the value of current liabilities (those liabilities that must be paid within one year). The rule of thumb for evaluating current ratio is that the minimum acceptable ratio is 2.0, and higher is better. The calculation and use of financial ratios are discussed in detail in Chapter 14. Financial flexibility is an indicator of the business's ability to manage cash flows so that the company has the financial ability to respond appropriately if an unexpected opportunity or problem arises. There are no accepted financial ratios that are indicators of financial flexibility. Financial flexibility is a matter of judgment, usually based on experience. What owners, managers, bankers, and investors look for to help indicate levels of financial flexibility include (1) the ability to sell

non-operating assets, (2) the ability to obtain loans or to sell additional stock, and (3) the ability to increase efficiency and to lower costs of operation.20 You can see that what is similar across the three indicators is the business's ability to rapidly and efficiently raise additional capital. The financial strength of the business is also a matter of informed judgment. The balance sheet provides information about the nature of the assets and liabilities of the business. In evaluating financial strength, more cash and cash equivalents indicate higher strength. Current assets that comprise cash, short-term investments, and accounts receivable are more indicative of strength than are inventories and prepaid expenses. In fact, excessive amounts of inventory in the current assets are indicative of management problems and financial weakness. For example, a large inventory may indicate lagging sales or products that have become obsolete or fallen out of favor with customers—all indicators of out-of-touch management. Long-term assets that are relatively new, low current liabilities, low long-term debt, and fully funded retirement plans for employees are all indicative of financial strength. Problems in Interpreting Balance Sheet Information For all its usefulness to the owners and managers of businesses, the balance sheet has several limitations. First, all values listed in a balance sheet are historical values—the cost of the asset when it was acquired. In the case of long-lived assets, such as land, buildings, and equipment, the value recorded in the accounting records can be widely different from the asset's current value. Given even a small level of inflation, the original cost of such assets is likely to be a much smaller number of dollars than its current value. On the other hand, cash is always current. This means that ratios such as return on assets (current income/net average asset value) have a current value as numerator and a denominator that, at best, is measured in older dollars of greater purchasing power. At the extreme, the true value of the asset may have changed because of changes in population density, demographics, highway access, and economic development. Page 448 Additionally, every balance sheet typically contains estimated amounts, such as an allowance for estimated loss from uncollectible accounts receivable, an allowance for estimated warranty cost, accumulated depreciation, depletion, amortization, and income taxes. Sometimes these estimates can be significantly wrong, such as when an unexpected product defect appears. Finally, certain assets and liabilities are omitted from the balance sheet. Assets that are not listed include the value of licenses, established business with vendors, established customers, organizational knowledge and expertise, employee loyalty and morale, and research and development. When such assets represent a major strength of your company, the balance sheet will under report your firm's financial strength. Despite its problems, the balance sheet provides essential information for outside investors. Investors who would buy equity want to know the value of the assets of the business and what claims exist on those assets. Bankers look to the balance sheet to estimate the likely future cash flows that will be available to repay the loan. Skill Module

12.2 gives an example of how the information in the balance sheet is used by lenders. SKILL MODULE 12.2 Applying for a Loan You are going to apply for a loan for your business. Your banker told you that you will need to bring him a set of financial statements that show your business income, your business's financial position (balance sheet), and your cash flows for the year to date. To complete this task, you have collected the following information from your accounting records, which you keep manually in a three-ring binder. Use the information to make a balance sheet in the format shown in Figure 12.6. Account Balance Accounts payable $ 2,500 Accounts receivable 5,000 Building and equipment 112,000 Note to bank 27,500 Customer deposits 3,000 Cash 15,000 Accumulated depreciation 35,000 Capital portion of owners' equity 50,000 Retained earnings 14,000 What is the amount of current and long-term assets that you have? Can you pledge the retained earnings of $14,000 as collateral for the new loan? Why or why not? Calculate the current ratio. Using the rule of thumb given in the text, is this a good or bad ratio? Why would the current ratio matter to your banker? Your instructor may provide you with a sample solution for this skill module. Cash Flow Statement You compute the cash flow statement in order to see the sources and uses of cash by the business. Cash flow statements can be either direct statements or indirect statements. The direct statement is developed solely from the cash records of the business (only those things bought and sold). GAAP (generally accepted accounting principles) now specifies that the direct method should be used. Page 449 The indirect statement of cash flows starts with net income and adjusts the accruals and deferrals to provide cash flow information that can be easily reconciled to the other financial statements. Most owners, lenders, and investors prefer the indirect method because it explicitly links net income and the balance sheet to cash flows. There are six items that must be reported in the statement of cash flows (see Figure 12.7A): FIGURE 12.7AOrganization of the Cash Flow Statement Cash flows from operating activities. Cash flows from investing activities. Cash flows from financing activities. Net effect of foreign exchange rates. Net change in cash balance during the period. Noncash investing and financing activities. Page 450 Common cash inflows (receipts) and outflows (payments) are shown in Figure 12.7B. FIGURE 12.7BTypical Cash Inflows and Outflows on the Cash Flow Statement The actual predicted cash flow for Red Jett for January 2011 is shown below. Compare the line items in the Red Jett cash flow statement to the items listed in Figure 12.7A, above. Operating activities include all the functions that are performed to create your product or service. Thus the receipt of cash from customers is an operating activity. Funds received from obtaining a loan at a bank is not an operating activity; rather, it is a financing activity. Investing activities include the acquisition and disposal of property, plant, equipment, and investment securities of other firms. The outflows are the cash investments made by the business to acquire noncash assets. Investing outflows arise from the sale or disposal of noncash assets acquired from

prior investments. Financing activities are those actions taken by management to finance the operations of the business. Thus cash inflows come only from investments by owners and from money borrowed through notes, mortgages, and bonds. Cash outflows from financing activities comprise capital repaid to owners and repayment of the principal amount of borrowings. Page 451 Net effect of foreign exchange rates is becoming ever more important to small businesses. The Internet has opened foreign trade to businesses of all sizes. Exchange rates often vary rapidly, affecting the value of contracts and sales made in currencies other than the currency of the home nation of the business. Net change in cash balance simply reconciles the net increase or decrease with the beginning cash balance and the ending cash balance. Noncash investing and financing comprise transactions in which an exchange of value other than cash takes place. An example of a noncash transaction is when a debt is settled by issuing stock to the creditor. These types of transactions are rarely made by small businesses. A more common transaction for small businesses is a barter transaction, which is discussed in detail in Chapter 13.



RED JETT Sweets

Income Statement
for the Year Ending Dec. 31, 2011

Revenues and gains	
Sales revenue	$48,379
Expenses & losses	
Cost of goods sold	15,164
Sales, general, and administrative	50,218
Provision for income tax	- 0 -
Net income	($17,003)

RED JETT Sweets

Income Statement
for the year ending Dec. 31, 2011

Revenues and gains	
Sales revenue	$48,379
less fees, spoilage, sales tax collected	4,162
Net sales revenue	44,217
less cost of goods sold	11,002
Gross margin	33,215
Sales, general, & administrative expenses	
Salaries & Wages	26,149
Rent	8,290
Web site, telephone, marketing	4,520
Transportation	2,403
Insurance	2,000
Research & recipe development	2,188
Legal & Accounting	3,088
Depreciation expense	1,580
Total SG & A	50,218
Operating income	(17,003)
Provision for income taxes	- 0 -
Net income	($17,003)

Gross margin is stated specifically.

Marketing, advertising, and cost of selling is specified.

Operating income is reported.

Honest Financials	
Income Statement for November 2020	
Sales	–0–
Expenses	10,000
Net income	(10,000)

Misstated Financials	
Income Statement for November 2020	
Sales	200,000
Expenses	10,000
Net income	190,000

Balance Sheet as of November 30, 2020	
Current assets	
Cash	$ 200,000
Current liabilities	
Accounts payable	10,000
Unearned income	200,000
Owners' equity	(10,000)
Total liabilities & equity	200,000

Balance Sheet as of November 30, 2020	
Current assets	
Cash	$ 200,000
Current liabilities	
Accounts payable	10,000
Owners' Equity	190,000
Total liabilities & equity	200,000

RED JETT Sweets

Fort Worth, Texas
Balance Sheet as of January 31, 2011

Assets		**Liabilities**	
Current Assets		**Current Liabilities**	
Cash	$41,500	Account Payable	- 0 -
plus invoice collected	8,250		
less bill paid	(2,040)	**Long-Term Liabilities**	
Total Cash	47,710	Long-term loan	$23,000
Accounts receivable	- 0 -		
Inventory	- 0 -		
Total Current Assets	47,710	**Total Liabilities**	23,000
Long-Term Assets		**Owners' Equity**	
Bakery Equipment	2,500	Common stock	$50,000
Mobile Food Truck	29,000	Retained earnings	6,210
Total Long-Term Assets	31,500	**Total Equity**	56,210
Total Assets	79,210	**Total Liabilities & Equity**	79,210

Question	Cash Flow Content
Cash flows from operating activities	
1. How much money did I receive from my customers?	Cash collected from customers
2. How much did I pay for merchandise?	(Cash paid for merchandise)
3. How much did I pay for leased equipment?	(Cash paid for equipment leases)
4. How much did I pay my employees?	(Cash paid for wages and salaries)
5. How much did I pay for other expenses?	(Cash paid for miscellaneous expenses)
6. How much cash did I receive from interest earned?	Interest received
7. How much did I pay in interest on borrowed funds?	(Interest paid)
8. How much cash was provided (used) by operations?	Net cash provided (used) by operating activities
Cash flows from investing activities	
9. How much cash did I receive (use) from disposing of obsolete or surplus equipment?	Cash proceeds (use) from disposal of equipment
10. How much did I use in paying credit deposits?	(Cash paid in security deposits)
11. How much cash did I receive from selling stock in another company?	Cash proceeds from security sales
12. How much cash did I pay to acquire equipment?	(Acquisition of equipment)
Cash flows from financing activities	
13. How much money did I invest in my own business?	Owner's contributions
14. How much did I borrow from banks?	Proceeds from bank loans
15. How much did I pay back to banks on loans?	(Principal payments on bank loans)
16. How much money did I take out of the business for personal use?	(Owner's draws)
Net effect of foreign exchange rates	
17. How much money did I gain (lose) through foreign currency conversions?	Gain (loss) due to foreign currency exchanges
Net increase (decrease) in cash	
18. Do I have more or (less) cash now than at the beginning of the year?	Net increase (decrease) in cash
Noncash investing and financing activities	
19. What was the value of barter transactions that I made?	Schedule of noncash investing and financing activities

Inflows	Outflows
Cash Flows from Operating Activities	
1. Cash received from customers 2. Interest received on accounts receivable 3. Dividends received on investments in other firms 4. Cash refunds from vendors 5. All interest received from loans to other entities	1. Cash paid to purchase inventory 2. Salaries and wages 3. Cash paid for rent, utilities, royalties, and license fees 4. Income taxes, duties, and fines 5. All interest paid on liabilities
Cash Flows from Investing Activities	
1. Disposal of property, plant, and equipment 2. Disposal of investment securities 3. Receipt of the capital amount of loans made to customers and vendors	1. Acquisition of property, plant and equipment 2. Acquisition of investment securities 3. Loans made to other entities 4. Acquisition of assets other than inventories
Cash Flows from Financing Activities	
1. Cash received from owners of the business 2. Cash received from borrowing	1. Cash paid to owners as dividends and draws 2. Cash paid to acquire the firm's own stock 3. Repayment of the principal of borrowed funds

RED JETT Sweets

Fort Worth, Texas
Cash Flows for the Month of January 2011

Cash received from customers	$ 424
Cash paid to vendors	
credit card providers	-
sales tax paid to Texas	30
raw materials used in production	99
Salaries & Wages	480
Payroll taxes/benefits	42
Rent	420
Web site, marketing	1,900
Telephone	310
Transportation	-
Insurance	167
Research & recipe development	313
Legal & Accounting	2,703
Net cash flows from operations	(6,039)
Cash flow from investing activities	
Purchase of Equipment	(31,500)
Cash flow from financing activities	
Investment by owners	50,000
Cash received from borrowing	
Cash paid on loans	
Net cash flow from long-term financing activities	50,000
Beginning cash	-
Net cash increase(decrease)	12,461
Ending cash	$ 12,461

12-4 Use accounting information as a tool for managing your business effectively. Uses of Financial Accounting Although financial accounting is not specifically designed for management purposes, it can be a highly valuable aid in decision making. Financial and business managers are familiar with the format, content, and interpretation of financial statements. Obtaining loans, answering Internal Revenue Service inquiries, and satisfying the reporting requirements of regulatory agencies are all made easier when an appropriate set of financial statements is provided. As the accounting scandals of recent years have made evident, the existence of financial accounting statements, even when audited by major accounting firms, does not guarantee that the representations of management are complete, accurate, or even true. In this respect, financial accounting is much like a lock on the door. A lock will keep honest people honest. Crooks, on the other hand, will pick the lock, jimmy a window, or find another entry to commit burglary. Similarly, a business manager who is determined to commit fraud might be inconvenienced by accounting standards, but will find some way to do the crime. Page 452 Thinking about the lock idea, if you have locked something, doesn't it just make sense to double-check that the lock is in fact locked? Doing that just shows a healthy skepticism. Similarly for owners and managers of small businesses, all representations by owners, managers, employees, and providers of business outsourcing should be examined with an attitude of informed professional skepticism. It's just a healthy attitude to have. Reporting to Outsiders The greatest value of financial accounting for small business owners and managers is reporting the results of operations and the financial condition of the business to entities outside the business. Outsiders can include absentee owners,21 creditors and lenders, unions, and taxing and regulatory agencies. Each of these groups has some interest in the conduct of the business. Each has either or both legal rights and political power to enforce honest disclosure of your business's finances. You are less likely to be accused of misrepresentation if your disclosures comply with accepted accounting principles. Record Keeping The primary criteria for a small business's record-keeping system are (1) simplicity of use, (2) accuracy of detail, (3) timeliness of reports, (4) understandability to the manager of the business, and (5) security of data. An appropriate accounting system keeps records of the details of financial transactions that facilitate the task of corroborating the conduct of the business. The most convincing evidence that can be provided to outsiders is a set of complete and accurate records that can be substantiated by third-party sources. Taxation Current Internal Revenue Service (IRS) regulations require that employers withhold federal income, social security (FICA), and Medicare taxes from the wages of each employee. Employers must also pay the federal unemployment tax (FUTA). The amount withheld, and the employer's share of taxes, must be paid to the IRS regularly, on a schedule determined by the amount of withholding. At the year's end, each employer is required to submit summaries of each employee's total earnings and withholdings for the year and to report

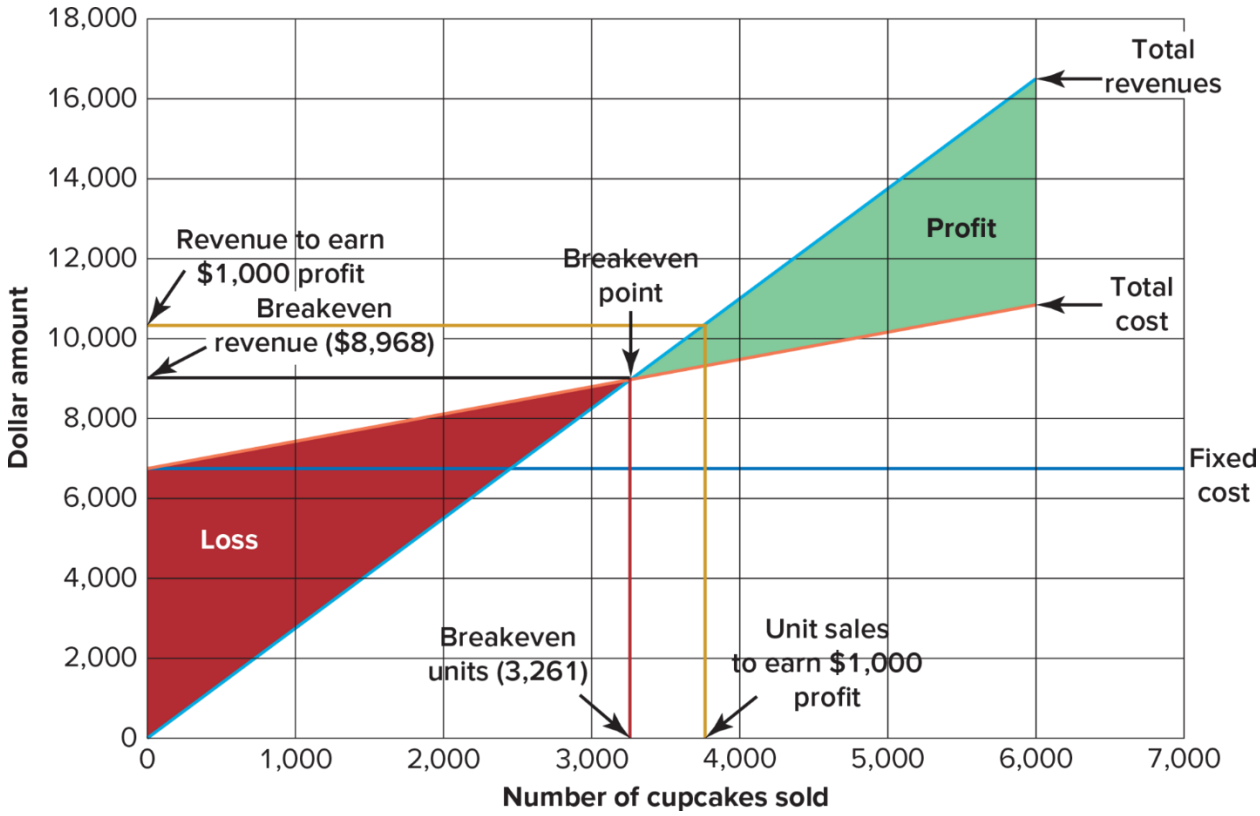
the information to the IRS and to each employee on a Form W-2. This process can be automated by using one of the small business computerized accounting systems mentioned earlier. Similarly, businesses need to pay taxes each year, and having the financial records makes the task dramatically easier. In fact, many of the computerized accounting packages have tax modules or are designed to feed information to tax programs such as Intuit's TurboTax or H&R Block's suite of tax preparation programs. Control of Receivables Accounts receivable—money owed your business by customers—are often the key to survival. An appropriate record-keeping system provides detailed reports of amounts due from customers including purchases, payments, and current contact information. The key in controlling receivables is to have them aged, by sorting them into groups of those that are 30, 60, 90, and over 90 days past due. If you don't receive payment when due, you should take immediate and appropriate action to collect it. Often businesses step up collection efforts when the receivables are more than 30 days overdue, with many businesses treating receivables more than 90 days old as delinquent. In such cases the owners may refer the account to a collection agency or even factor the account, selling it (at a substantial discount) to a company that will take aggressive actions to collect the entire amount owed and keep all the money it obtains. Analysis of Business Operations Page 453 Your accounting records contain information that can be easily used for analysis of the results and state of your business. Experience in your business provides a benchmark to which all items may be compared. Those items that appear unrealistic—either too high or too low—should be carefully examined. The examination should attempt to answer the following: What are the appropriate levels of sales and expenses? Why do certain expenses appear too high or too low? Can any expenses be reduced or eliminated? Are profits appropriate for your investment, risk, time, and effort? The use of financial accounting ratios for evaluating performance, controlling, and directing is discussed more fully in Chapter 14.

Uses of Managerial Accounting Managerial accounting is a set of forward-looking accounting procedures and techniques that is used as tool for effective management. Mastering certain managerial accounting techniques will make you a better small business manager. The techniques of managerial accounting will help you become more accurate at forecasting profits, planning operations, and conserving scarce resources. Managerial accounting information and reports are used in the conduct of all managerial functions: planning, organizing, staffing, directing, and controlling. Managerial accounting is based on understanding how costs change as a result of business changes. Some costs, such as the cost of food for a restaurant, change because of increases or decreases in the number of people who dine there. If you sell more steaks to customers, you must buy more steaks

from your meat supplier. Other costs, such as rent on your building, do not change when you sell more or when you sell less. Rent is usually determined by a contract called a lease. For most stores outside of malls, leases have a specified term (for example, one year) during which rent will not change. Many things both external and internal to the business can cause costs to change. External forces that cause cost changes can be anything from inflation, to changes in supply and demand, to economic shocks such as war. Internal forces are functions of how your business works. Consider a commuter airline. The amount of fuel used changes as a result of how long, how high, how fast the airplane is flown, and how much it weighs. Flying a long trip at a low altitude and a high speed will use much more fuel than flying a short trip at high altitude and low speed. The cost of fuel, therefore, changes with (1) external factors, the cost per gallon that you have to pay; and (2) internal factors, how you decide to operate your planes. Other costs of your airline will change according to the operating decisions you make. For example, the costs of landing the airplane are caused by the cost of a landing fee at the airport, wear on the tires and brakes, and fees for parking and using airport facilities. Costs for ticket agents, baggage handlers, and on-ground fleet service are largely driven by the number of airports that the airline serves. Notice that none of the costs for this commuter airline are related to the revenues paid by passengers. Pilots and flight attendants are paid the same even if there are no paying passengers on board. Landing costs are priced by the landing, no matter how many passengers are aboard, and no matter what they paid for a ticket. Costs for ground crew are determined by how many people are working and how many hours they work, not how many passengers they help. Management cannot quickly adjust to changes in the factors that cause most of the costs of operating an airline. Management is restricted by the characteristics of the airplanes operated, government regulation, and contractual obligations. It is fortunate for owners of small businesses that their costs usually are not so complex and difficult to predict. In fact, many familiar businesses have cost structures that make cost planning both possible and valuable. There are two managerial accounting procedures that depend on being able to forecast future revenues and expenses. These are (1) cost-volume-profit analysis and (2) the budget cycle process. We will discuss each of these below. Cost-Volume-Profit Analysis Page 454 Many new entrepreneurs and also many established business managers use cost-volume-profit analysis because it is easy to calculate and is easy to adjust for a range of assumptions. Cost-volume-profit analysis is based on sorting costs into only two categories: variable costs and fixed costs. Total cost is then the sum of fixed costs and variable costs. To make this analysis, all costs that change with changes in output (which can be units made, units sold, or sales revenue) are called variable costs. All other costs, those that do not change because of changes in output, are called fixed costs. Using Red Jett Sweets as our example, variable costs include the cost of the ingredients of the cupcakes (the more cupcakes made, the more flour, butter, and so on

is used). But the cost of the mobile cupcakery, itself, is a fixed cost. The food truck will have the same depreciation and the same interest and insurance expense regardless of whether or not any cupcakes are made. If we take a look at the proforma income statement that is part of the Red Jett business plan, we can easily categorize the fixed and variable costs as shown in Exhibit 12-1. EXHIBIT 12.1Expense (cost items) Credit card fees variable Spoilage & overproduction variable Cost of goods sold variable Salaries & wages fixed Payroll taxes/benefits fixed Rent fixed Website, marketing fixed Telephone fixed Transportation fixed Insurance fixed Legal & accounting fixed Depreciation expense fixed Interest expense fixed It is important to understand that fixed costs are paid whether you sell or make one product, one million products, or no products. Fixed costs include such things as rent, insurance, interest, and depreciation. Variable costs, however, are the costs directly related to the production or sale of one item. For example, Red Jett's cost for flour, butter, milk, and flavorings will increase with each cupcake that is baked. As is the case for Red Jett, most manufacturing, wholesale, and retail businesses usually have variable costs for the goods they sell. In contrast, many service businesses have very few variable costs. For example, costs for a provider of cloud services, such as Rackspace are primarily the cost of the fixed investment in computers, data storage devices, and the "wiring" that allows access by customers. There is very little cost to adding a customer. Rackspace has already invested in the computers and programs. Energy cost is not appreciably affected, nor will Rackspace have to hire additional personnel. Expendables are often variable costs. Expendables (also called indirect materials) are products used in the sales, manufacturing, or delivery that are not part of the finished product. An order of a dozen cupcakes will require a carton and packing materials in order to be shipped. This cost is not part of the product, but is necessary for distribution. Once the costs of a business have been placed into the categories of fixed and variable costs, it becomes possible, indeed it is easy, to calculate just how much product must be sold to reach a breakeven point where revenues exactly equal expenses. To accomplish a breakeven analysis, we need to simply solve a simple profit equation as is shown in Figure 12.8. The numbers used are from the Red Jett Sweets business plan projections for the month of August 2011. FIGURE 12.8Breakeven Analysis for Red Jett Sweets, Inc. for One Month At breakeven, revenue exactly equals total costs, thus: Revenue = Variable cost + Fixed cost Units sold × Price = Units sold × Unit variable cost + Fixed cost Units sold × $2.75 – Units sold × $0.68 = $6,750 Units sold × ($2.75 – $0.68) = $6,750 Units sold × ($2.07) = $6,750 Units sold = $6,750/$2.07 Units sold at breakeven 3,261 cupcakes Note that the calculation for breakeven sales is actually 3,260.87 However, only whole units can be sold, so the breakeven quantity is rounded up. Page 455 Examine the way that the equation for breakeven is simplified at the next-to-last line in Figure 12.8. Notice that the final simplification is calculated as: Breakeven in units = Fixed costs for the period/(Price of one unit – Variable cost of one unit) The expression

“Price of one unit – Variable cost of one unit” is called the contribution margin. You will usually see the equation for breakeven in units stated as “Breakeven = Fixed cost/Contribution margin” which is more succinct. The breakeven equation may be extended to allow for calculating the necessary level of sales to reach any desired profit. The logic of breakeven is that it is the level of sales where profit equals zero. It follows then that simply by adding the desired profit in dollars to the fixed cost in dollars and then dividing the sum by the contribution margin will provide the unit sales needed to attain that profit. Unit sales to attain a specific dollar profit = (Fixed cost + Desired profit)/Contribution margin To illustrate this, assume that Red Jett wishes to make a profit of $1,000 in one month. The equation to calculate the unit sales necessary to do this is: Unit sales to have a $1,000 profit = (Fixed costs + 1,000)/$2.07 Unit sales to have a $1,000 profit = ($7,750)/$2.07 Unit sales to have a $1,000 profit = 3,744 cupcakes Let’s create a graph of the CVP revenue and total cost lines. This graph is shown inFigure 12.9. FIGURE 12.9Cost-Volume-Profit Graph for Red Jett Sweets, Inc. Note that the two lines, revenues and total cost, cross at the point where units equal 3,261 cupcakes and dollars equal $8,968. This is the breakeven point. The gold-colored vertical and horizontal lines show that at 3,745 unit sales, revenues equal $10,300 (the point where the gold line intersects the revenue line) and total costs equal $9,300 (the point where the gold line intersects the total cost line). Profit is the vertical distance in the green-colored area which is the difference between total revenues and total costs, or a profit of $1,000. The cost-volume-profit analysis is an example of one type of sensitivity analysis. Once you have entered the data into a spreadsheet program, you can easily change your estimate of unit price and total costs to immediately see the effect on profitability. Key Points to Remember Fixed costs remain constant in total, but variable costs increase as output increases and decrease if output decreases. The more cupcakes that Red Jett sells, the less its fixed cost per item becomes, but variable cost per item is unchanged. Page 456 The breakeven equation simplifies to: Breakeven = Fixed costs/Contribution margin of one unit. The output level necessary to attain any specific profit goal is calculated by adding the desired profit to the fixed cost then dividing the sum by the contribution margin of one unit. The next important managerial accounting use for small businesses is the budgeting process, which we will discuss as the next topic.



Preparing Pro Forma Financial Statements for Your Business Plan 12-5 Create a set of appropriate budgets that support developing pro forma financial statements for your business plan. The most common model used for small business planning is the familiar business plan, like those described in Chapter 8. Looked at from the perspective of managerial accounting, a business plan specifies the amounts and types of inputs required to achieve a set of desired outcomes. It is based on assumptions concerning how costs will change in response to changes in the business operations, how risks can be controlled, and what opportunities can be taken. The financial projections in your business plan are a form of a budget which can easily be expanded to be useful for day-to-day management of your business. In fact, the budgeting techniques we show here use exactly the same estimates and calculations as you must make to create pro forma financial statements for a business plan. The budgets here, however, have the advantage of being comprised of a series of small, easy-to-understand schedules. When they are linked and printed as a single set of financial statements, they are identical to the familiar business plan pro forma statements. Planning/Budgeting Strategic planning, as discussed in Chapter 7, results in statements that are expressed in broad terms. For example, your strategic marketing position may be a price strategy, a luxury strategy, or a value strategy. However, if your broad strategic goals are to be achieved, you must take specific tactical steps. Budgeting is

the process through which strategy is mapped into a series of tactical and operational actions.22 The process of achieving your strategic goals requires complex activities, cooperation among the people in your business, and the use of significant valuable resources. You will be better able to direct all this if you have a documented quantitative plan of action for your business. Such a plan is called a budget. Page 457 Once a budget has been prepared, it becomes a standard against which performance can be measured.23 Your budget establishes resource restraints within which your managers and employees must operate. Your budget becomes the basis for controlling activities and the use of resources. By constantly comparing actual performance to budgeted amounts, determining the causes of the inevitable differences, taking necessary corrective action, and providing feedback concerning performance, you may ensure that you attain your business goals. Despite the many benefits to comprehensive budgeting, few small business owners consistently budget.24 Those who do create budgets often set them aside in the rush of business activities.25 Let's face it, budgeting is seen by many entrepreneurs as a tedious and difficult job. We are going to try to convince you otherwise. In fact, business planning is a simple process of applying your knowledge of your business to make estimates of future operations and results. In many ways it is little more than an expanded application of the breakeven analysis that was discussed earlier. However, business planning uses more detail than breakeven analysis, and thus provides a basis for analyzing, directing, and controlling your day-to-day business operations at the level of detail that is most effective for you. Budgeting provides an organized and consistent platform for providing necessary information for effective management. The first step in budgeting depends on where you are in your business. If you are operating an established business with a history of operations, you should start with a sales forecast. If, however, you are at the earliest planning stages forecasting sales may not be possible. As we mention in the discussion of cost-volume-profit analysis, it may be more practical if you budget your forecast expenses, then return to the sales forecast and see just what results from various forecasts of sales volume. From the sales forecast, and from your knowledge of cost behaviors, collections, payments, and expenses, a complete business plan will be developed. Although this sounds daunting, in practice, you can adjust the level of detail you need to provide a comprehensive budget that is both compact and understandable.
The Process of Budgeting to Produce Pro Forma Financial Statements The single most common mistake that most entrepreneurial students make when they attempt to produce a business plan is to furnish pro forma financial statements that are internally inconsistent. The accounting process is structured such that information flows from one financial statement into another financial statement and thus can be reconciled to each other. This relationship among the financial statements is called articulation. Properly prepared financial statements agree such that net income can be adjusted for accruals and deferrals

to determine cash flows from operations. The cash flow statement provides the ending cash balance for the balance sheet. Net income from the current period is transferred into retained earnings on the balance sheet. If you follow the very simple process illustrated here, you will be able to produce a set of pro forma financial statements that are consistent, accurate, and easy to modify as your business plan evolves. To illustrate just how easy this process is, we will use the information from Red Jett Sweets's business plan, but will follow a logical set of steps that will end in the familiar financial statements: income statement, balance sheet, and statement of cash flows. We will do this by completing a set of very small schedules which we call budgets.Table 12.1 lists the most commonly used of these budgets for a manufacturing business and a merchandising business. TABLE 12.1 Useful Budgets and SchedulesTable Summary: Table divided into two columns summarizes uses and advantages of having budgets for manufacturing business. The column headers are marked from left to right as: budget for a manufacturing business and budget for a retail or wholesale business. Budget for a Manufacturing Business Budget for a Retail or Wholesale Business Sales budget Sales budget Production budget Purchases budget Direct materials budget Cost of goods sold budget Direct labor budget Labor budget Manufacturing overhead budget Overhead budget Cost of goods manufactured and sold budget Selling and administrative budget Selling and administrative expense budget Cash receipts budget Cash receipts budget Cash disbursements budget Cash disbursements budget Cash budget Cash budget Budgeted income statement Budgeted income statement Pro forma cash flow statement Pro forma cash flow statement Pro forma balance sheet Pro forma balance sheet To start this process, refer to the financial assumptions in the Red Jett business plan. The only change we make from these original assumptions is to provide for an ending balance of raw materials. This allows illustrating the budgeting method. For this exercise, we will prepare a set of budgets as if we were planning for the last quarter of mobile cupcakery sales. As you will see, the process is exactly the same whether you are budgeting for a single month, a quarter, or a year. Page 458 The diagram in Figure 12.10 illustrates how a comprehensive (or "master") budget is developed from basic inputs (sales forecast, assumptions, existing financial facts, and current plans for development and growth) through detailed item budgets to a final pro forma budget plan. The individual detailed budgets are discussed in this chapter. FIGURE 12.10Budgeting Relationships You may create as many or as few supplemental budgets and schedules as you need to model your business. The budgets and schedules that you will find most useful are listed in Table 12.1. Completing a Master Budget As you will have to do when you develop your own business plan, the owners of Red Jett Sweets, Inc. had to make a set of assumptions about how their business would work. Some of the assumptions that they made were to simplify the task of planning. Other assumptions, however, are unique to the business. The Red Jett business plan specifically states that the

company will not maintain any inventory of ready-to-sell cupcakes beyond the day they are actually baked. All unsold cupcakes are to be donated to charity at the end of each day. Also, the plan provides for a minimum of productive assets. The kitchen and ovens are rented. Only a limited number of baking pans, mixing bowls, and other cooking tools are to be acquired. Thus, even though the Red Jett business combines elements of both a manufacturing business and a merchandising business, the plan is unique to Red Jett and cannot easily be adapted to other businesses. Page 459 Therefore, to provide you with as useful an example as possible, one which can be easily modified to fit a wide variety of businesses, we will follow the Red Jett business plan, except for the assumption that an inventory of raw materials will be kept on hand. This will allow us to present a teaching case that will include assumptions that are more generally applicable to the most common small businesses. The Sales Budget The first step in preparing a master budget is to prepare a sales budget. The sales budget, illustrated in Table 12.2, shows the projected future level of sales in units multiplied by the sales price per unit. Chapter 10 discusses the many methods you may use to project future sales, but for this exercise we are simply using the original projections from the Red Jett Sweets, Inc. business plan. To complete the last quarter's budgets, we need a sales projection for January 2012. While the Red Jett financials do not provide a specific number for January, the year's projected sales is 48,000 units, or an average of 4,000 units per month. Because January is usually not a good month for food truck sales, we will assume target sales for January 2012 of 3,000 units. TABLE 12.2 Sales Budget Fourth Quarter, 2011 This may not seem to be very realistic, but remember that all the numbers both in an initial business plan and in later budgets are based on lots of estimates. There simply is no way that you are ever going to estimate the exact "correct" amount. For the purposes of planning, controlling, and directing, it is sufficient for any small business to carry calculations only to whole dollar amounts, or even to round to the nearest one hundred dollars. Page 460 The Purchases Budget Once sales have been projected, the next step is to plan for inventory purchases. The business plan for Red Jett Sweets specifically states that all raw materials are consumed in the month that they are purchased and that all unsold cupcakes are donated to charity each day. Because of these assumptions the business plan does not provide for ending inventories of either raw materials or completed cupcakes. Solely for the purpose of illustrating the budgeting techniques, here we will change the assumption for raw materials to plan to have 20 percent of the next month's needs in inventory at the end of each month. Thus, we assume that at the end of September there are enough raw materials of flour, sugar, milk, eggs, and butter to meet 20 percent of October's planned production. Also, we are budgeting raw materials in only dollar amounts. This is because Red Jett's financials are silent on the quantities of the raw materials that will be needed. The budgeting process is exactly the same for budgeting for physical quantities of materials as for budgeting for dollars. So, if

you wish to budget in physical quantities for your business plan, you need only use the same format shown here. After all, a dollar is nothing but a quantity of money. There are almost as many patterns of buying and holding inventory as there are businesses that need inventory. Restaurants and bars usually purchase food and alcoholic beverages, especially meats, fish, and beer, two or three times per week. It is common for restaurant food suppliers to require payment in cash when the goods are delivered. The common practice for consumer electronics (stereos, DVD players, car radios, etc.) is for the retailer to place annual orders for products that will come in the form of only a few future deliveries. This annual ordering is often done at the winter Consumer Electronics Trade Show, held in Chicago every January. Most often, a wholesale business will start each month with some amount of inventory already in hand (as much as 60 percent of projected sales) and the rest is ordered for delivery in that month. Page 461 The purchases budget (Table 12.3) shows the number of units that are expected to be acquired during the budget period. The specific number of units that must be bought in each period is a function of how many units are on hand at the beginning of the period, how many are projected to be sold, and the desired number of units to be left over in inventory at the end of the period. TABLE 12.3 Purchases Budget in Dollar Amounts Fourth Quarter, 2011 This simple formula is used over and over to produce most of the schedules of a master budget: Other inventory items to be purchased are estimated in exactly the same manner. The Cost of Goods Sold Budget The cost of goods sold budget (Table 12.4) is very simple for Red Jett Sweets. Because the business plan states that all cupcakes made in a day will be consumed completely by sales and by giving any remaining inventory to a shelter, the amount of material used is directly proportional to gross sales. Thus the budget is simply the number of cupcakes to be made multiplied by the variable cost per cupcake. TABLE 12.4 Cost of Goods Sold Budget The Inventory Budget An inventory budget combines a purchases budget with a cost of goods sold budget. This is done solely to simplify the budget process where the business does not maintain significant inventories. In the case of Red Jett Sweets, the only inventory is raw materials, the amount of which is negligible. The managers of Red Jett Sweets, Inc. have decided that the value of calculating the cost of goods sold is less than the added complexity and expense that the process entails. And, of course, the Red Jett business plan specifies that all materials will be purchased and consumed within the same period which makes an inventory budget unnecessary. The Labor Budget The labor budget (Table 12.5) shows both the amount and cost of labor needed to meet output goals. Red Jett makes an assumption that both wages and salaries will be the same each month and will increase year-over-year proportionally to the anticipated increase in gross sales. TABLE 12.5 Labor Budget There are small businesses, especially online businesses, that have very little cost of labor. In such cases, management often chooses not to show labor as a separate amount and includes it in administrative or overhead costs because the cost of

separate budgeting and accounting for these processes is greater than the value of separate accounting for these processes for the management of the firm. So, how would you predict labor costs if they do vary with the amount of output? First, you would have to estimate the amount of production labor required for each unit of production. Second, you would then multiply the unit labor cost times the number of units actually produced. A common way to make this estimate is to take total annual estimated production labor costs and divide it by total annual estimated units of output. This provides a reasonable estimate of labor cost per unit. Page 462 The Selling, General, and Administrative Expense Budget It is common to combine all costs of selling into a single SG&A budget. This is the method in the Red Jett example, as shown in Table 12.6. TABLE 12.6 Selling, General, and Administrative Expense Budget Budgeted Income Statement The budgets that have been completed to this point can now be combined into a pro forma budgeted income statement. It is common to create the budgeted income statement for the first year of a business plan in a monthly format as is shown here. The second and third years are usually presented as one-year projections. Table 12.7 illustrates this convention by showing each month, October through December, separately, followed by the summation of these months in the column labeled “Quarter 1.” TABLE 12.7 Budgeted Income Statement Thus the detailed planning that is included in the budget is condensed for the income statement. The entire budgeted income statement is based on the assumption that all budgeted items, sales, production, purchasing, labor, and SG&A will be incurred exactly as planned in the supporting budgets. During the year, comparisons of actual results are made to the budgeted items. If the budget is met, then the projected profit will be realized. Page 463 Completing a Comprehensive Budget The final schedules to be completed to produce a master budget are (1) a cash receipts budget, (2) a cash disbursements budget, and (3) a cash budget. From these schedules, a pro forma cash flow statement and a pro forma projected balance sheet are prepared. The management of cash is so important to small business that it deserves a chapter to itself. Therefore, the discussion of cash and cash budgeting is included in the next chapter. Controlling Managerial accounting, primarily through the budget process, provides information that allows managers to determine how well the business is doing in attaining its goals. This is done by comparing actual results to budgeted results. The difference between actual and budget is called a variance. Management can determine where the business is not meeting goals through examining a report of variances. Page 464 Variances should be evaluated to determine the significance of a particular difference from the original budget. Small variances from budget are expected to occur, as the budget is a collection of estimates. No business manager, in fact, no person, no computer, is capable of making estimates that are exactly what future results will be. For this reason it is customary for management to determine a range of acceptable variances. Individual variances that fall within the predetermined

acceptable range are ignored. Variances that exceed the acceptable range are examined in detail, with the manager tracing the activities that drive the cost to determine the cause of the variance and appropriate methods to deal with it. Variance analysis is a topic that is simple in concept but complex in execution. At the variance analysis' most basic level, variances occur because of one of two events: (1) prices are different from what was estimated, or (2) quantities are different from what was estimated.26 Variances can be constructed to show two things: (1) the effect of changes in prices and (2) the effect of changes in the quantity used or produced. You can learn more about variance analysis from the McGraw-Hill textbook by Ray Garrison et al., Managerial Accounting, 15th edition.

RED JETT Sweets

Budgeted Income Statement for the Fourth Quarter, 2011

	October	November	December	Quarter 1
Gross Sales Revenue	8,778	8,778	8,778	26,334
Less				
Credit card fees	88	88	88	263
Spoilage & over production	61	61	56	178
Sales tax collected	615	615	615	1,845
Net sales revenue	8,014	8,014	8,019	24,048
Less cost of goods sold	2,029	2,029	1,845	5,903
Gross margin	5,985	5,985	6,174	18,145
Sales, general, & administrative				
Salaries & Wages	4,141	4,141	4,141	12,423
Payroll taxes/benefits	358	358	358	1,074
Rent	1,000	1,000	1,000	3,000
Web site, marketing, & telephone	210	210	210	630
Insurance	167	167	167	500
Legal & Accounting	35	35	35	105
Transportation	343	343	343	1,030
Depreciation expense	316	316	316	948
Total SG & A	6,570	6,570	6,570	19,710
Net income before taxes	(585)	(585)	(396)	(1,565)

RED JETT Sweets

Selling, General, and Administrative Budget

Selling, general, & administrative	October	November	December	Quarter 4
Salaries & Wages	4,141	4,141	4,141	12,423
Payroll taxes/benefits	358	358	358	1,074
Rent	1,000	1,000	1,000	3,000
Web site, marketing	100	100	100	300
Telephone	110	110	110	330
Transportation	343	343	343	1,030
Insurance	167	167	167	500
Legal & Accounting	35	35	35	105
Depreciation expense	316	316	316	948
Total selling, general & administrative	6,570	6,570	6,570	19,710

RED JETT Sweets

Salary and Wages Budget

	October	November	December	Quarter 4
Salary and Wages	4,141	4,141	4,141	12,423
Total cost of Salaries and Wages	4,141	4,141	4,141	12,423

RED JETT Sweets

Cost of Goods Sold Budget (Dollar Amounts)
Fourth Quarter, 2011

	October	November	December	Quarter 4
Unit sales	2,983	2,983	2,983	8,949
Unit cost of goods sold	$0.68	$0.68	$0.68	$0.68
Total cost of goods sold	2,028	2,028	2,028	6,085

RED JETT Sweets

Purchases Budget in Dollar Amounts
Fourth Quarter 2011

	October	November	December	Quarter 4	January
Unit sales	2,983	2,983	2,983	8,949	3,000
Raw materials per unit	$0.68	$0.68	$0.68	$0.68	$0.68
Materials needed for production	2,028	2,028	2,028	6,085	2,040
Plus desired ending inventory	406	406	408	408	
Materials required	2,434	2,397	2,252	6,309	
Less beginning inventory	406	406	406	406	
Inventory to be purchased	$2,028	$2,028	$2,028	$6,087	

Note that the amount needed is the sum of the amount for production plus desired ending inventory

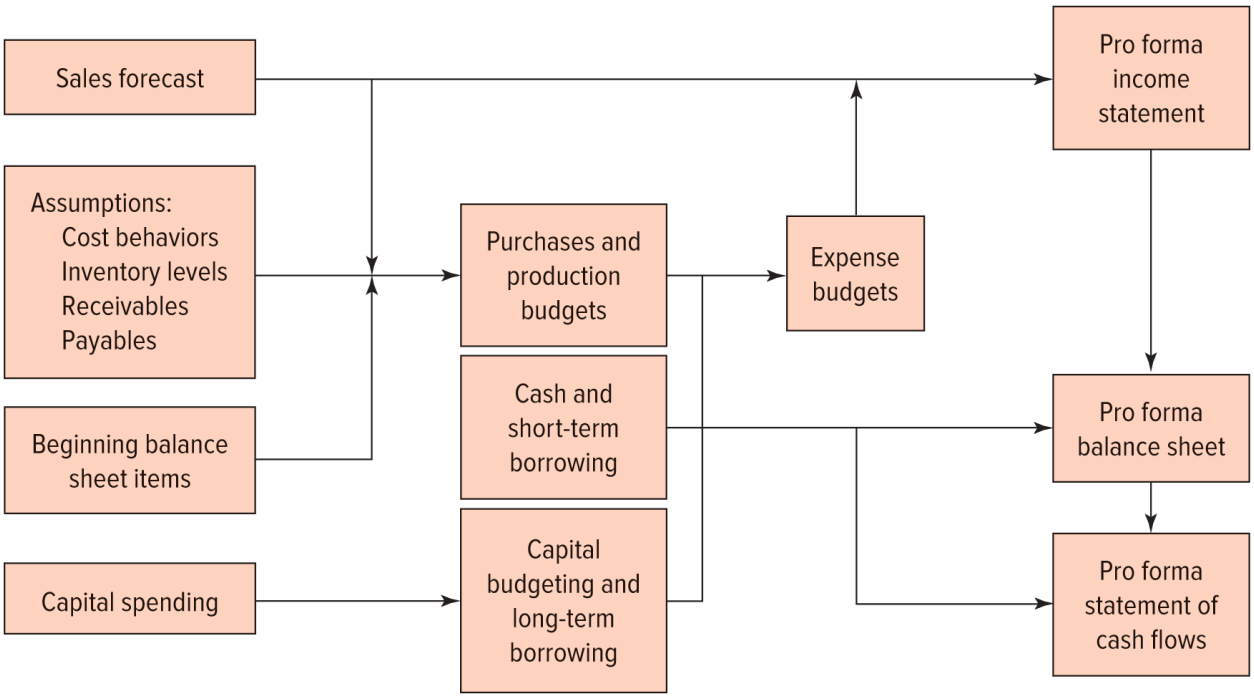
Note also that there is $406 worth of inventory on hand at the beginning of October. This amount does not have to be purchased

Also note that Nov ending inventory is Dec beginning inventory

RED JETT Sweets

Sales Budget
Fourth Quarter, 2011

REVENUES	October	November	December	Quarter 4	January
Unit sales	2,983	2,983	2,983	8,949	3,000
Sales price (including sales tax rounded)	$ 2.94	$ 2.94	$ 2.94	$ 2.94	$ 2.94
Cash sales	4,389	4,389	4,389	13,167	4,414
Credit card sales	4,389	4,389	4,389	13,167	4,414
Gross Sales	8,778	8,778	8,778	26,334	8,828
Less:					
Credit card fees	88	88	88	263	88
Spoilage & over production	61	61	61	183	62
Sales tax collected	615	615	615	1,845	618
Net sales revenue	8,014	8,014	8,014	24,042	8,060



Decision Making 12-6 Use accounting information to make better business decisions. Managers have five primary functions in a business: planning, organizing, staffing, directing, and controlling the combined efforts of the firm. Each of these functions requires making decisions, both large and small. The primary purpose of managerial accounting is to support good decision making. To use accounting information for decision making, you need to have some understanding of the processes by which people make decisions. All current theories of decision making are based on the belief that people are rational, that is, people think, reason, and consider alternatives before they act. Although this assumption may be a bit optimistic, it applies (or should apply) to decision making in business situations. The assumption of rationality itself comes in several "flavors." At one extreme are theories that assume that the human mind has essentially unlimited reasoning powers. At the other extreme are theories that assume that people have limited abilities to obtain and process information. The theories of unlimited reasoning powers have been largely discredited. Research shows that people use incomplete information and incomplete analyses of alternatives to make decisions. Today, it is generally assumed that people are inefficient processors of information. Theories based on the assumption of limited human abilities are called bounded rationality models.27 One implication of the assumption that people are limited in their ability to use information is that the more information available to be included into the decision process, the less efficient that process will be. Thus to make good decisions we need (1) good information, (2) efficient ways to condense information so it is understandable, and (3) methods to help compare alternatives. Both financial and managerial accounting are methodologies that reduce the complexity of the information used to make business decisions. By definition, accounting deals with only financial information. By limiting the information being considered to financial concerns, the complexity of the alternatives is reduced. Accounting further reduces information complexity by evaluating information for relevance to the decision to be made. For financial purposes, any decision that was made in the past cannot be changed and is therefore irrelevant to any decision to be made today. Information that is the same for two or more alternatives cannot be used to choose between them. For these reasons, accounting decision support is based solely on the differences in expected financial outcomes among identified alternatives. Examining some of the common management decisions that can be aided by the use of accounting information and procedures will illustrate these concepts. Investments are a constant management problem. To reduce the difficulty of choosing from among investment alternatives, accounting has developed two basic methodologies to reduce the magnitude and complexity of the information that must be considered in making an appropriate decision. The first of these simplification methods is called differential revenues and expenses. This methodology comprises estimating the changes in revenues and expenses from current operating results that will occur if each alternative is

taken. The decision rule that is applied is to accept the investment that produces the greatest profit. Page 465 The second simplification method is called net present value (NPV) analysis. NPV analyses are based on the concept that a dollar to be received right now has more utility (value) than does a dollar to be received at some time in the future. To perform NPV analyses, only cash flows are considered. The decision rule is to accept the largest positive NPV. The theory and application of NPV is covered in detail in Appendix B of Chapter 15. Outsourcing requires that a decision be made whether the business should make a component of its own product or purchase the component from another business. As is done in investment decisions, accounting information relevant to the decision is reduced to differential revenues and costs, or to cash flows. Depending on the methodology chosen, either the differential profits (losses) or the net present value of each alternative is calculated. Once the information is developed, decision rules are applied.28 A simple example of an outsourcing decision is the provision of salad for a local restaurant. Suppose that the restaurant is a barbeque that serves cole slaw as its only salad. The restaurant may either make the slaw on premises at a cost of $2.87 per pound or purchase it from a wholesaler at $2.40 per pound. Should you make the slaw or purchase the slaw? A superficial examination of the problem would indicate that purchasing it is less expensive. Examining only the differential costs offers a very different conclusion (see Exhibit 12.2). EXHIBIT 12.2Using Differential Costs to Make an Outsourcing Decision: Make or Buy? Current Costs to Make Slaw on Premises Pounds of slaw served per month 900 Materials per pound $0.87 Direct labor per pound (2.4 hrs @ $10 per 30 lbs.) 0.80 Variable overhead per pound 0.20 Allocated fixed costs per pound 1.00 Total cost per pound $2.87 Differential Costs between Alternatives Table Summary: Summary Alternatives Make Buy Materials $0.87 –0– Direct labor 0.80 –0– Variable overhead 0.20 –0– Purchase price –0– 2.40 Total $1.87 $2.40 The difference arises from the fact that fixed costs will not change if the decision is made to purchase the slaw. By definition, fixed costs are costs that do not change with changes in output (here output is slaw). As a result, the amount of fixed cost allocated to making slaw is irrelevant to the decision. If you have trouble understanding this, simply put a line for fixed cost into the previous decision criteria. Put the allocated amount of $1.00 in the columns for making and buying the slaw. Add the columns and see if your decision would change. Accounting is useful for managers of small businesses, for record keeping, for reporting to absentee owners and other stakeholders, for substantiating assertions made to regulators and taxing agencies, for support of the five functions of management, and for decision making. Accounting information is a financial model of the operations of the business and provides a wealth of useful reports, analyses, and measures that are valuable to the management of small businesses. Accounting is a rich source of information. It is not, however, the only source of information needed by managers.

CHAPTER SUMMARY 12-1 Describe the basic concepts of accounting. Accounting matters to small businesses because: Accounting proves what your business did financially. Accounting shows how much your business is worth. Banks, creditors, development agencies, and investors require accounting statements. Accounting provides easy-to-understand plans for business operations. Accounting provides information about how your business is doing. There are three types of accounting: Managerial accounting attempts to predict the results of management decisions. Tax accounting is used to produce tax returns and schedules. Financial accounting is a formal, rule-based system intended primarily for absentee owners, bankers, investors, and regulators. Accounting is based on a few basic concepts: A business is believed to have an existence that is separate and different from the owner's (business entity concept). Because a business exists, it is expected to continue to exist (going concept). The accounting equation is simply an expression of the commonsense statement that your net worth is whatever is left over after all your debts are paid. To use accounting effectively for management purposes, you must understand the difference between costs and expenses: Costs are real changes in the value of what you own. Expenses are simply entries made in your accounting system to record your use of goods and services in the conduct of your business. There are only two reasons to do accounting: To produce information that is useful to you for managing your business. To meet legal or contractual requirements. 12-2 Specify the requirements for a small business accounting system. The primary reason to acquire and use a computerized accounting system in your business is to ensure the accuracy of your accounting information. Your accounting system should easily and efficiently accomplish the following tasks: Provide a simple, easy-to-understand user interface. Have an exhaustive context-sensitive help function. Produce financial statements in the format used by your industry and type of business. Facilitate the development of a cash budget. Facilitate the task of developing operating and investment budgets. Provide a method for you to define and produce custom reports to meet your management needs. Be able to export financial data in a form that can be used by your accountant and can be imported into tax preparation and spreadsheet programs. Maintain an internal "audit trail" that records all entries and changes to the accounting system in order to facilitate the identification and correction of errors. Have provisions that will either allow the program to grow with your business or to easily export its data into programs that can handle larger businesses. Your specific accounting needs are determined by the industry you are in and by the size of your business. When a business is large enough to have one or more employees, formal record keeping is a must. Essential elements of an accounting system are: Cash accounting that is accurate, easy to use, and tracks all checks written and all deposits made. Accounts payable records to track what you owe and to make timely payments in order to capture prompt pay discounts and to maintain a good credit rating for your business. Payroll

records to ensure that payroll and employment taxes are kept current. Fixed asset accounting that automatically calculates and accumulates depreciation. Page 467 Inventory accounting to facilitate managing inventory. Credit card sales function to enable reconciling your sales records to those of your credit card provider. Accounts receivable records if you provide credit to your customers. Insurance register to ease the problems of keeping necessary insurance coverage current and in force. Investment records if your business keeps surplus cash invested in securities. Leasehold records if your business has made improvements to leased property or equipment. 12-3 Explain the content and format of common financial statements. The final output of an accounting computer system is a set of six financial statements and reports: Income statement. Statement of comprehensive income. Statement of retained earnings. Statement of owners' equity. Balance sheet. Cash flow statement. It is common for these statements to be presented as only three separate documents by combining the statements of retained earnings and owners' equity into the equity section of the balance sheet. The income statement is the primary source of information about a business's profitability. The primary difficulties in understanding and interpreting the income statement arise from two causes: Disagreements about what should be reported as revenue. Disputes over when to recognize revenues. The income statement is used in the following ways: The income statement is used to analyze the effectiveness of business operations. Lenders use operating income as a measure of how much debt a business can support. Equity investors similarly look to operating income as an indication of future sales and thus the value of their investment. The balance sheet presents a snapshot of the financial holdings and liabilities at the close of business on a specified date. The balance sheet is used in the following ways: The balance sheet is used to determine the liquidity, financial flexibility, and financial strength of the business. These measures are used by owners, lenders, and equity investors in making financial and investment decisions. The following are problems in interpreting balance sheet information: All values listed in a balance sheet are historical values—the cost of the asset when it was acquired. A balance sheet contains several estimated amounts. Certain assets and liabilities are omitted from the balance sheet. The purpose of the cash flow statement is to disclose the sources and uses of cash by the business. There are two primary formats of cash flow statement: The direct statement is developed solely from the cash records of the business and does not make any reconciliation to the income statement. The indirect statement of cash flows starts with net income and adjusts the accruals and deferrals to provide cash flow information that can be easily reconciled to the other financial statements. 12-4 Use accounting information as a tool for managing your business effectively. Financial accounting is useful for decision making. Financial and business managers are familiar with the format, content, and interpretation of financial statements. Obtaining loans, answering Internal Revenue Service

inquiries, and satisfying the reporting requirements of regulatory agencies are all made easier when an appropriate set of financial statements is provided. Financial accounting is used for reporting to outsiders. Managerial accounting is used internally for management purposes. By mastering managerial accounting techniques, you will become more accurate at forecasting profits, planning operations, and conserving scarce resources. Managerial accounting information and reports are used in the conduct of all the managerial functions of planning, organizing, staffing, directing, and controlling. The most used managerial accounting technique is cost-volume-profit analysis. Accounting data contain the information necessary to create detailed plans of how to achieve a desired level of profit. Page 468 The process of profit planning comprises creating a model of the business that will allow you to test various situations, assumptions, and occurrences, without risking financial loss. The most common model used for small businesses planning is the familiar business plan. The financial projections in your business plan are a form of a budget that can easily be expanded to be useful for the day-to-day management of your business. 12-5 Create a set of appropriate budgets that support developing pro forma financial statements for your business plan. Budgeting is the process through which strategy is mapped into a series of tactical and operational actions. Once a budget has been prepared, it becomes a standard against which performance can be measured. Business planning is a simple process of applying your knowledge of your business to make estimates of future operations and results. The most common budget schedules are: The sales budget shows the projected future level of sales in units multiplied by the sales price per unit. The purchases budget shows the number of units expected to be acquired during the budget period. The cost of goods sold budget shows the predicted cost of product actually sold. The labor budget shows both the amount and cost of labor needed to meet required output. The overhead budget details both fixed and variable overhead costs. Selling, general, and administrative expense (SG&A) budget shows both costs that change with production and costs that don't. These budget schedules are combined into pro forma financial statements. The difference between actual results and budgeted amounts is called a variance. Variances occur because either actual prices or volume is different from what was budgeted. To understand the effect of price changes, you must answer the following questions: What would I have paid for the amount I actually used, if the price had been what I expected? How much material should I have used to make the number of units that were actually completed? 12-6 Use accounting information to make better business decisions. The five primary functions in a business—planning, organizing, staffing, directing, and controlling—are combined as input for decision making. To make good decisions we need: Good information. Efficient methods to condense information so it is understandable. Methods to facilitate comparing alternatives. Managerial accounting is both a source of information that is used in decision making and a methodology to reduce

the complexity of the information used to make a decision. Common management decisions that can be aided by the use of accounting information and procedures include investments and outsourcing. Managerial accounting uses two primary simplification methods to handle information: differential revenues and expenses and net present value (NPV) analysis.

KEY TERMS financial accounting managerial accounting tax accounting generally accepted accounting principles (GAAP) income statement balance sheet statement of cash flows standard budgeting profit planning pro forma financial statements business entity concept going concern concept accounting equation asset Page 469 owners' equity liabilities on account expense cost of goods sold revenue retained earnings account permanent accounts MACRS rate depreciation financial statements retained earnings articulate operating income liquidity current ratio financial flexibility financial strength operating activities investing activities financing activities external (cost) factors internal (cost) factors cost-volume-profit analysis budget cycle variable costs fixed costs total cost budget variance variance analysis investment net present value (NPV) outsourcing

DISCUSSION QUESTIONS Which of the three types of accounting is most important to small business? Which is the least? Why do you think so? How does the accounting equation relate to the balance sheet? How are costs and expenses different? Why should you, as a business owner, care about the distinction between costs and expenses? Defend the statement "The function of accounting is to produce information that is useful for decision making." What are the three most important characteristics of a small business computer accounting system? Why do you think these are the most important? What are the three most important functions (think cash, accounts payable, owners' equity, etc.) that a computerized accounting system should have? Why are they the most important? Which financial report is most important for managing a small business? Why? You can sell your product (have revenues) without receiving any money. You can receive money (customer deposits) without having any revenue. Because revenue, expenses, and cash are so different, why should a small business owner care about the income statement? Why would a small business ever need an accounting system more complicated than a simple checkbook register? A budget is a collection of estimates—a big word that means the same thing as "guess." If you are guessing what future results will be, what value can a budget really have? How are budgets related to business plans, as described in Chapter 8? Are there any advantages to making a series of budget schedules, rather than just producing a pro forma income statement and balance sheet? What are the disadvantages, if any?

EXPERIENTIAL EXERCISES Assume that you have decided to purchase a computerized small business accounting system. Visit the website of each of the accounting systems named in this chapter. From the information there determine: The price of the accounting system. The minimum computer requirements for the program. The availability and cost of training to learn to use the program. The availability of trained accountants and consultants in your geographic area who can be retained to assist you in setting up and using the program. Choose an industry in which you would like to own a small business. Use the Internet, the university library, and the public library to find the names and addresses of industry trade associations. Examine the websites of the trade associations for availability of financial statistics of your industry. Examine governmental agency sites, such as those of the Department of Commerce, Department of the Treasury, Securities and Exchange Commission, and the Small Business Administration, for benchmark statistics. Choose a public business that is in the same industry as the business you would like to own. Go to the company's website and find "investor relations." Download a copy of the business's most recent annual report. Examine the financial statements in the annual report. Make a list of the ways in which their content and format differ from the examples in this text. Either by yourself or in a group of other students, select a business that you could reasonably expect to be able to start and run right now. (This could be as simple as a T-shirt company.) Using the techniques learned in exercises 2 and 3, develop a set of estimates of (a) sales, (b) variable cost of product or service, and (c) the amount of other costs (rent, electricity, transportation, etc.) that you would expect to incur. Using these estimates, create a set of budget schedules through the schedule of cost of goods manufactured and sold. Go to either the QuickBooks or the Sage 50 Accounting website. Download and install a demonstration copy of its accounting program. Using either the budget schedules you developed in exercise 4, or the Red Jett Sweets example from the text, set up the program to do accounting as if this were a real business. Do a Google search for the terms "accounting system" and "small business." Follow the Google returns to the websites of the companies (other than the ones named in the text) that you can find that sell computerized accounting systems. Examine the site to determine if its program would be suitable under the criteria specified in the text.

MINI-CASE PHIONIA'S FINICKY FELINE GOURMET CAT DINNERS Phionia Phelps has developed a gourmet cat food. Not only is this food eagerly eaten by the most finicky felines, but it is specially formulated to prevent the many health problems of aging cats. Phionia has been making the food on her kitchen range and selling it at $250 per case only to close acquaintances who are also cat lovers. One of her wealthy acquaintances has now offered to invest in her business if Phionia will begin selling the product through her

website. However, the investor wants Phionia to produce a budget for the first six months of operation. Based on her experience to date, Phionia predicts the following sales in cases: Nov Dec Jan Feb Mar Apr May Jun Jul Aug 4,300 4,600 5,000 5,500 6,100 6,800 7,000 7,200 7,400 7,500 Each case of Finicky Feline Gourmet Cat Dinner requires 5 pounds of prime lamb meat, 10 pounds of short-grain Chinese rice, 2 pounds of wild caught Alaskan salmon, and 1 pound of secret vitamins and supplements. Phionia plans to maintain end-of-month inventories equal to 10 percent of the next month's projected sales, to meet expected sales growth. All the ingredients inventories are to be maintained at 5 percent of the production needs for the next month, but not to exceed 1,000 pounds of any one ingredient. January will begin with all inventories at the projected levels. Page 471 Phionia has the following price quotes good for the following year: The production process requires direct labor at two skill levels: (1) ingredient preparation, $18 per hour; and (2) cooking and canning, $24 per hour. Two workers are willing to work part time if there is not enough demand for them to work full time. It takes one hour to process one batch. Because of preparation and cleanup time, only six batches can be produced per day. Each batch produces enough food to fill 100 cases. Manufacturing overhead is $6,000 fixed per month plus $15 per case. Table Summary: Table divided into two columns summarizes cost of items. The column headers are marked from left to right as: item and dollar per pound. Item $ per pound Lamb $15.00 Rice 1.20 Salmon 24.00 Vitamins 45.00 CASE DISCUSSION QUESTIONS Prepare the following budgets for the period January through June: Sales budget in dollars. Production budget in units. Direct materials purchases budget in pounds. Direct materials purchases budget in dollars. Direct manufacturing labor budget in dollars. Comment on the viability of this business and the advisability of the investor making a $50,000 investment to get it started. Your instructor may provide you with a sample solution for this mini-case.

CHAPTER 13 Cash: Lifeblood of the Business Page 473 LEARNING OBJECTIVES After you complete this chapter, you will be able to: LO 13-1 Explain the concepts of money, cash, and cash equivalents. LO 13-2 Explain the importance of managing your business's cash flows. LO 13-3 Plan for cash needs by developing a cash budget. LO 13-4 Explain the basics of how cash flows can be kept secured. LO 13-5 Implement strategies for coping with cash flow problems. LO 13-6 Appendix A: Reconcile bank and company book balances. • Thomas Lemery built Creatacor, Inc. from a spin-off of GE's corporate exhibit operations. Between 1987 and 2015, the company grew from 8 employees to more than 50. Jean Hatalsky was one of the most senior of these, having been with the company for 27 years. Who would ever believe that this long-time, loyal employee would steal a half million dollars from its owners? Creatacor Focus on Small Business: Creatacor, Inc. Creatacor,

Inc. of Clifton Park, New York, designs and builds exhibits for trade shows, sets for live theater, and retail displays. Over the more than 30 years of the company's existence, problems with managing cash flows has caused numerous meetings of managers and several calls for the company to tighten its spending.1 The problems with cash flows resulted in the company reporting financial irregularities to the police and also hiring Pamela Wickes, a CPA and forensic accountant. By means of an extensive investigation as part of an exhaustive audit of the firm's financial records, Pamela was able to establish that $500,000 had been embezzled across a four-year period.2 Soon after the company was started in 1987, Lemery hired a recent high school graduate, 18-year-old Jean Hatalsky, as the receptionist for the new business. During the next 28 years, Jean, a valued and trusted employee, took on more and more responsibility, eventually becoming the firm's office manager.3 In this position, beginning in 2011, Jean began stealing by using the business credit cards to make personal purchases.4 As the office manager, Jean had access to the company's credit cards, and also was responsible for recording the purpose and amount of the transactions. She spent company money on gifts for her family members, a snowmobile, and trips and entertainment for herself and her family. To do this, she had only to falsify the records made for the credit card purchases, incorrectly classifying them as legitimate business expenditures for such items as equipment, inventory, and selling expenses. Finally, as a result of Pamela's forensic accounting, Jean Hatalsky was confronted with evidence of her fraud and was arrested and arraigned on charges of larceny and falsifying business records. In 2017, she pled guilty to the charges and received a prison sentence of up to six years and a requirement to repay the stolen money.5 DISCUSSION QUESTIONS What would you recommend if your business was experiencing continuing cash flow problems? What should a business do to prevent employee theft as was experienced by Creatacor?

Money as the Key Idea 13-1 Explain the concepts of money, cash, and cash equivalents. Ask someone you know the question, "What is money?" Most likely the answer you get will tell you about currency—the bills and coins that you use to make purchases. That answer is not completely wrong, but it tells only part of the story because while all currency is money, all money is not currency. Today we use many electronic forms of money: debit cards, online bill payments, electronic bank drafts, wire transfers, even Bitcoin. These forms of money make an important point—the essence of money is that it is a form of information. The U.S. Dallas Federal Reserve Bank provides the following definition: Money is a medium of exchange accepted by the community, meaning it's what people buy things with and sell things for. Money provides a standard for measuring value, so that the worth of different goods and services can be compared. And lastly, money is a store of value that can be

saved for later purchases.6 This definition gives us three purposes for money: To facilitate exchanges of unlike assets, such as your labor for a grocer's food. To measure the value of things, both tangible, such as jewelry, and intangible, such as pain and suffering. To keep track of wealth. Most importantly, it defines the essence of money which is contained in the phrase "accepted by the community." Essentially, what makes money "money" is the belief users have about the information contained in the money. This belief is the only thing that gives our paper and digital money its value. Knowing the meaning of money is important so that you can recognize where you have money in your business. For example, are profits money? You might think so at first, but consider: As is discussed in the previous chapter, profit is simply the difference between two accounting items, revenue and expense. Revenue is an accounting entry that is made when you sell your product or service, whether or not any money changes hands! Expense is an accounting entry made when you use up some asset for the purpose of producing revenues. Profits are not money. Profits are information that is useful in predicting when and how much money you may collect. This is shown explicitly later in this chapter when we discuss budgeting for cash flows.

Cash and Cash Equivalents To this point we've been throwing around the terms money and cash as if everyone knows just what they are; how they differ. Although we have carefully defined the meaning of money, we have not done so for cash. Cash is money, but it's only one form of money, a subcategory of money that is immediately available to be spent. Not all money is "spendable." For example, think of certificates of deposit. Although you may well have a lot of money in CDs, you may have very little cash because your money is tied up in the CDs and would take time to convert into cash. Cash is composed of the three forms of money that can be immediately used to make payments: currency, demand deposits, and traveler's checks. Businesses, on the other hand, use a concept called cash equivalents to measure how much money is available to be spent. Cash equivalents are assets that may be turned into cash in a slightly longer time, from a few hours to a few days, such as marketable securities, commercial paper, and debt investments that mature in less than three months. Businesses use cash equivalents because they provide a better measure of the resources available to pay current bills than is provided by cash alone. Page 475 Currency is the most familiar form of cash: bills and coins that represent money. On April 2, 2019, the Board of Governors of the Federal Reserve System reported that the supply of currency in circulation was $1.7 trillion as of January 31, 2019,7 or approximately $5,800 of currency for each individual living in the United States.8 The Federal Reserve, however, states that more than half of all U.S. currency is being held outside the United States. Demand deposits make up most of the noncurrency cash. Demand deposits are accounts that let you withdraw (what bankers call demand) any amount of the balance

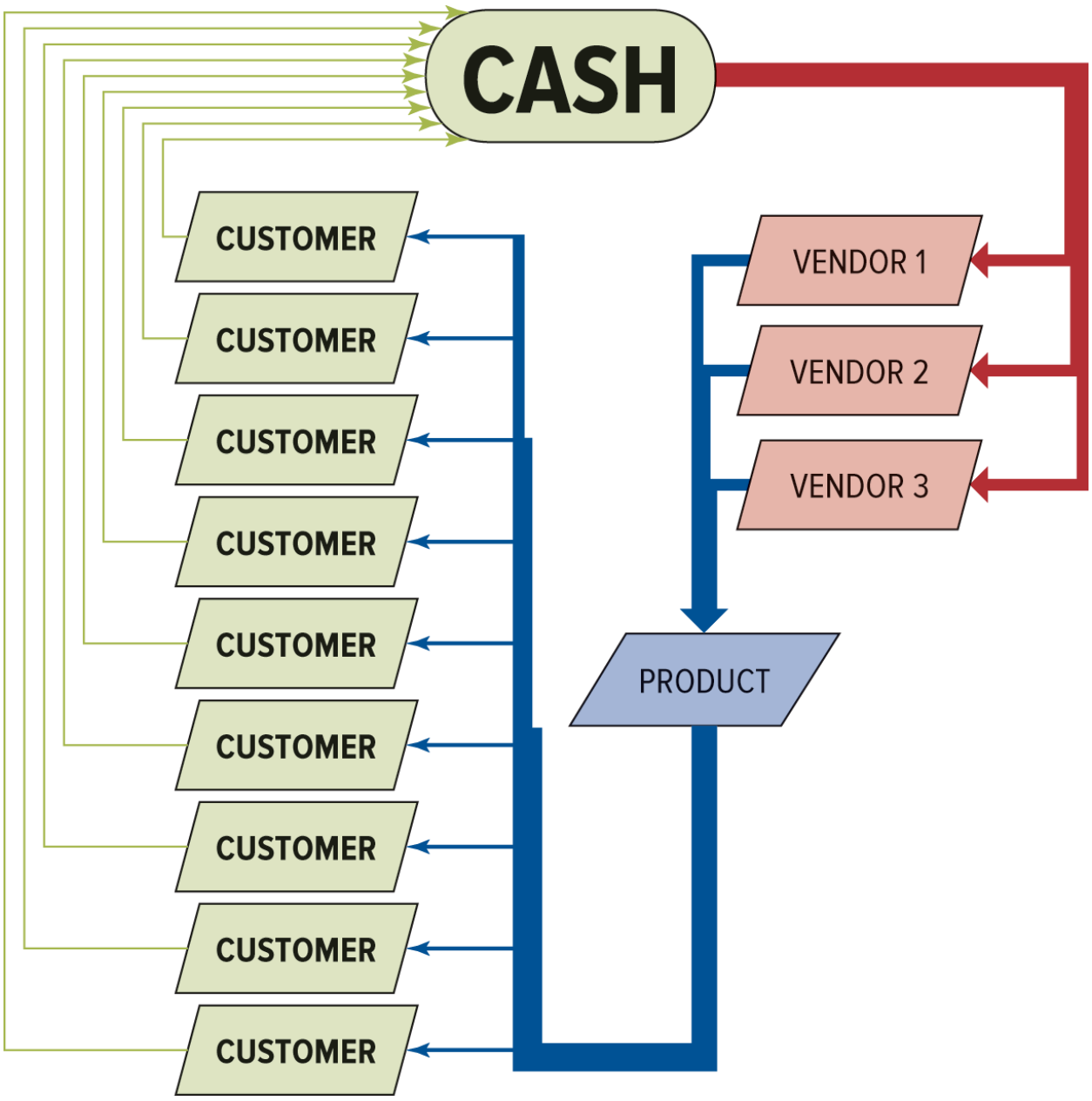
immediately, without any advance notice to the institution: That is, owners may withdraw money on demand by using a check, draft, currency, or electronic transfer. Checking accounts and savings accounts are the two most common forms of demand deposit accounts. Marketable securities are made up of stocks and bonds for which there is an active auction market, such as the NASDAQ or the New York Stock Exchange. Marketable securities represent either ownership or debt of publicly held firms and government issued debt, in the form of bonds, notes, and bills. Commercial paper and short-term debt are two forms of short-term financing (30 days to 1 year) whereby a company with good credit can issue a note for cash to another company. Commercial paper is issued to be paid to the bearer of the note, and thus is fully transferable. Short-term debt is expected to be collected in less than a year, but it can be sold to other investors at any time.

The Importance of Cash Management 13-2 Explain the importance of managing your business's cash flows. There are three very important parts to managing cash in a business. The first part is to collect cash from customers and to have it available when you need it. The second part is to keep the cash safe from misuse and theft. We will discuss both of these issues, especially the issue of securely keeping cash once it has been collected. Managing the amounts and timing of your business's cash flows is absolutely essential to success. Not doing so may cause you to miss required debt payments and encounter all the problems that missing payments cause. It can cause you to not be able to pay suppliers on time, which can lead to having them refuse to sell essential inventory to your business. It can, in fact, cause your business to fail as happens every year to many small businesses. The problems of not managing cash flows are like avalanches: Once started, they grow and grow until they are overpowering. Money presents two big problems to owners and managers of small businesses. First is how much money the business has, will receive, and must pay to others. Second is when the money will be received and when the money must be paid. These processes of controlling how much and when money will come into and go out of the business are referred to as cash flow management. Table Summary: Table divided into two columns summarizes characteristics of managing amount of money invested in businesses. The column headers are marked from left to right as: cash flow management is and cash flow management is not. Cash flow management is: Cash flow management is not: having enough cash available to meet business needs keeping large sums of cash on hand at all times being able to obtain cash quickly from a variety of sources obtaining all cash from business operations understanding how (and when) cash is used by your business assuming that all sales and expenses happen instantly closely monitoring accounts receivable for late payments trusting customers to pay when the bill comes due providing motivation for customers to make prompt payments providing lengthy

credit terms without charging interest taking advantage of prompt payment discount only when it is cheaper than borrowing allowing large sums to “sit” in non-interest-paying accounts Page 476 The most effective cash flow techniques require budgeting for both the amount and timing of required cash flows in order to know when cash will be available and when it will be needed. In this chapter we go into detail about how you can know exactly when money is coming in and how much you can expect to receive. Likewise, we explain how you can know when and how much must be paid out for bills. If you are like most people, you will find some surprises. Things that you think you know are going to turn out to be false. Things you might think are trivial will turn out to be of great importance. It is part of what makes cash and money fascinating.

Money In/Money Out—Just How Important Is It? Approximately 82 percent of small businesses that fail do so because of cash flow problems, not because of lack of profitability.9 Simply stated, controlling the flows of cash into and out of your business will make the difference between success and failure. The problem reduces to two simple facts: many small businesses have (1) too little money coming into the business and (2) too much money flowing out. A poll conducted by the National Federation of Independent Business (NFIB) in 201610 found that approximately 60 percent of small business owners experienced cash flows to be either a continuing or an occasional problem for their businesses. When asked if cash flow was a greater problem now than in the past, 36 percent reported it to be less of a problem, while 25 percent responded that cash flow was more of a problem than it had been three years earlier. Owners reported that the three primary causes of cash flow problems were (1) difficulty collecting money due from customers, (2) seasonal variation in sales, and (3) requirements to periodically make large capital investments. (See Figure 13.1.) FIGURE 13.1 Causes of Cash Shortages Cash flow management is a problem for small businesses because of the difficulty of matching the timing of the receipt of cash to the timing of the need to expend cash. Figure 13.2 illustrates the flow of money into and out of your business as you buy what you need and sell your product or your service. This repeating flow of money is called the cash-to-cash cycle or the operating cycle of your business. FIGURE 13.2The Cash-to-Cash Cycle Page 477 When you start a new business, you put in some money. You then buy all the things necessary to run the business such as materials, supplies, rent, and labor. Some of these you purchase for cash. Other things you may buy on credit, creating payables, which you will have to pay next month. You then use labor to convert materials and supplies into your product or service, which you sell to your customers. Your customers then either pay you immediately, or agree to pay you soon. The promises of your customers to pay are receivables, which you will collect in the future. The money you collect will then be used to buy the things

necessary to run your business, and thus the cycle repeats. The time that it takes to complete this cycle can be as short as a few hours or as long as several years, dependent on the type of business you are in. The ubiquitous pushcart vendors of hot dogs in New York City purchase inventory on credit every morning. They sell their product for cash during the day. Each evening they pay for the merchandise sold that day. The cash-to-cash cycle of a pushcart vendor is only a few hours. Construction projects, on the other hand, can easily take years to complete. A contractor will borrow money to begin construction. That money is paid out across the time that it takes to complete the project. The contractor, however, receives from the customer either a single payment upon completion or a few payments as specified completion targets are met. • Pushcart vendors, such as the ones pictured here, enjoy a very short cash-to-cash cycle due to the nature of their business. Each day, their receipt of cash from sales enables them to then expend cash back to their suppliers for exactly what has been sold. Though small in scope, the simplicity of their business setup allows for the immediate assessment of their profitability. Does this kind of setup appeal to you? Jantira Namwong/Shutterstock Page 478 Many small businesses experience difficulty or even failure because of (1) the mismatch in time between receiving cash and spending cash and (2) the mismatch between the size of payments received and the size of payments that must be made. In some businesses, such as restaurants, cash comes into the business in a reasonably dependable pattern that is affected by the state of the economy, the season, the day of the week, and the weather. Expenses, on the other hand, tend to occur less frequently but in larger amounts, as suppliers are paid monthly, employees are paid weekly, and food and beverage wholesalers are paid on delivery. Other businesses, such as construction firms, plumbing contractors, ski resorts, and equipment manufacturers, have cash receipts that tend to occur irregularly but in large amounts. However, the cash payment needs of these businesses are relatively smaller amounts paid consistently from month to month. (See Figures 13.3 and 13.4.) Page 479 FIGURE 13.3Cash-to-Cash Cycle: Many Vendors, Few Customers FIGURE 13.4Cash-to-Cash Cycle: Few Vendors, Many Customers Although maximizing your wealth may not be your highest priority, managing your business's money is critical to succeeding and being able to attain goals that are more important to you. John Mackey, founder of Whole Foods Market, Inc., said, "Business is the most transformative agency in the world. [Business leaders] can make money and do good. . . . I always wanted to make money. . . . To be sustainable, business has to be profitable."11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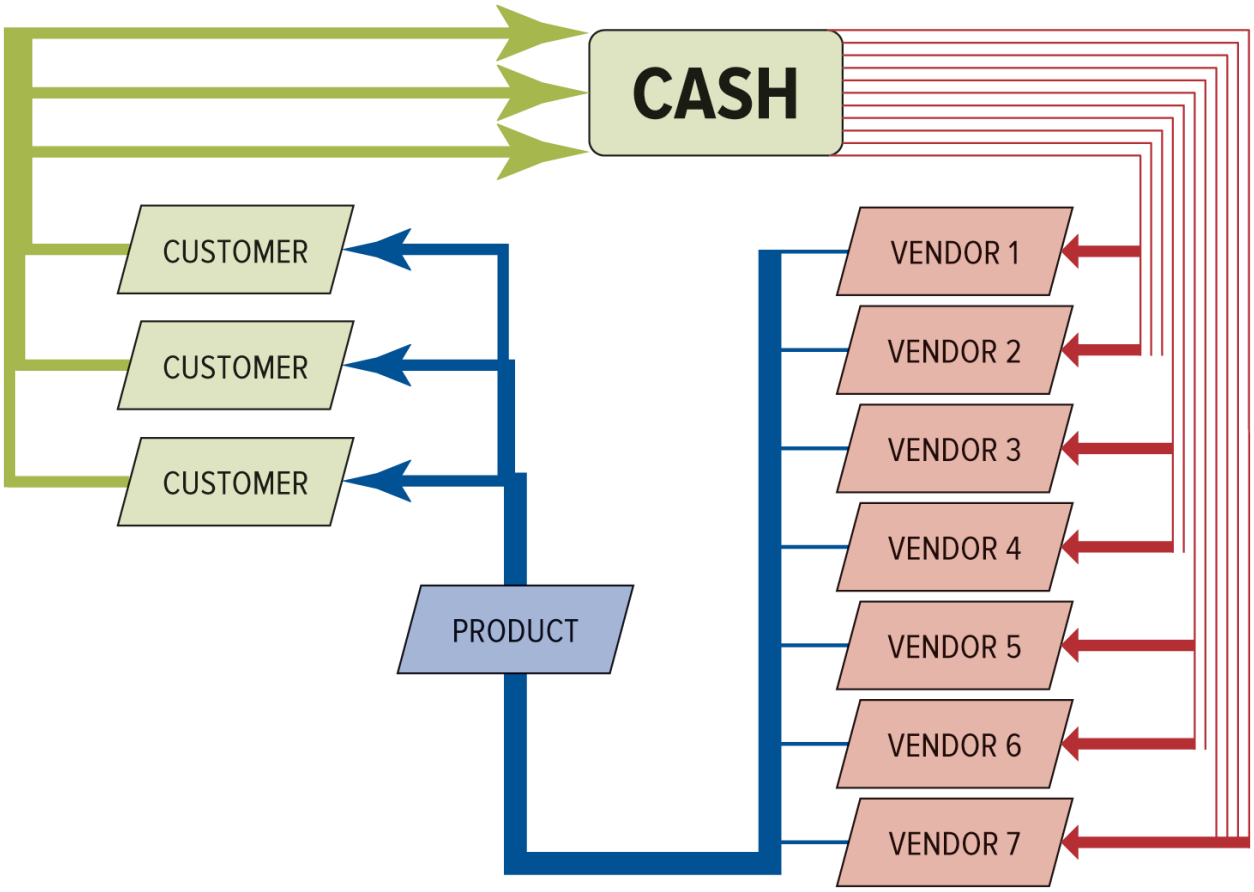
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CHILLI DOG
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COMBO W/ RICE
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CVS
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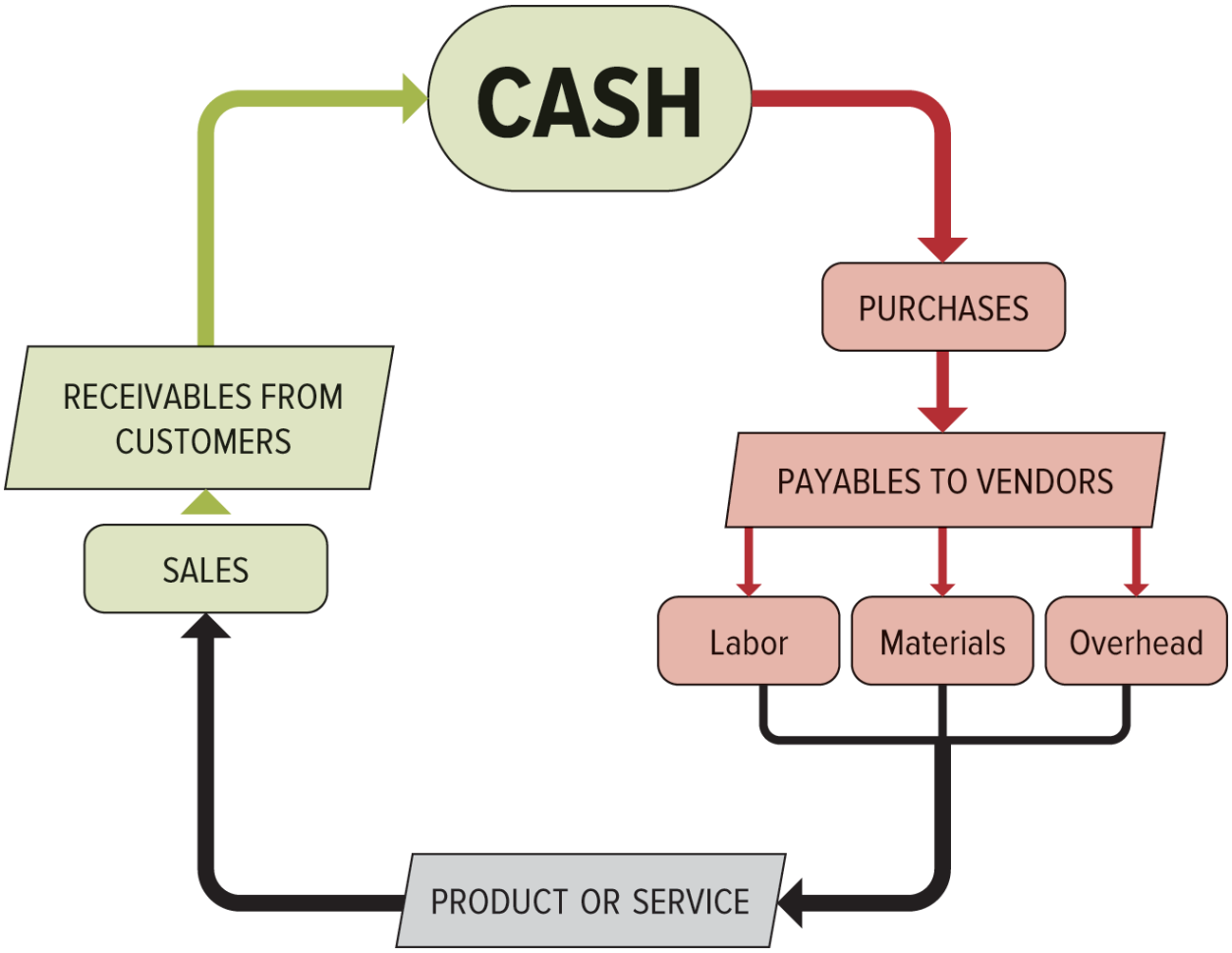
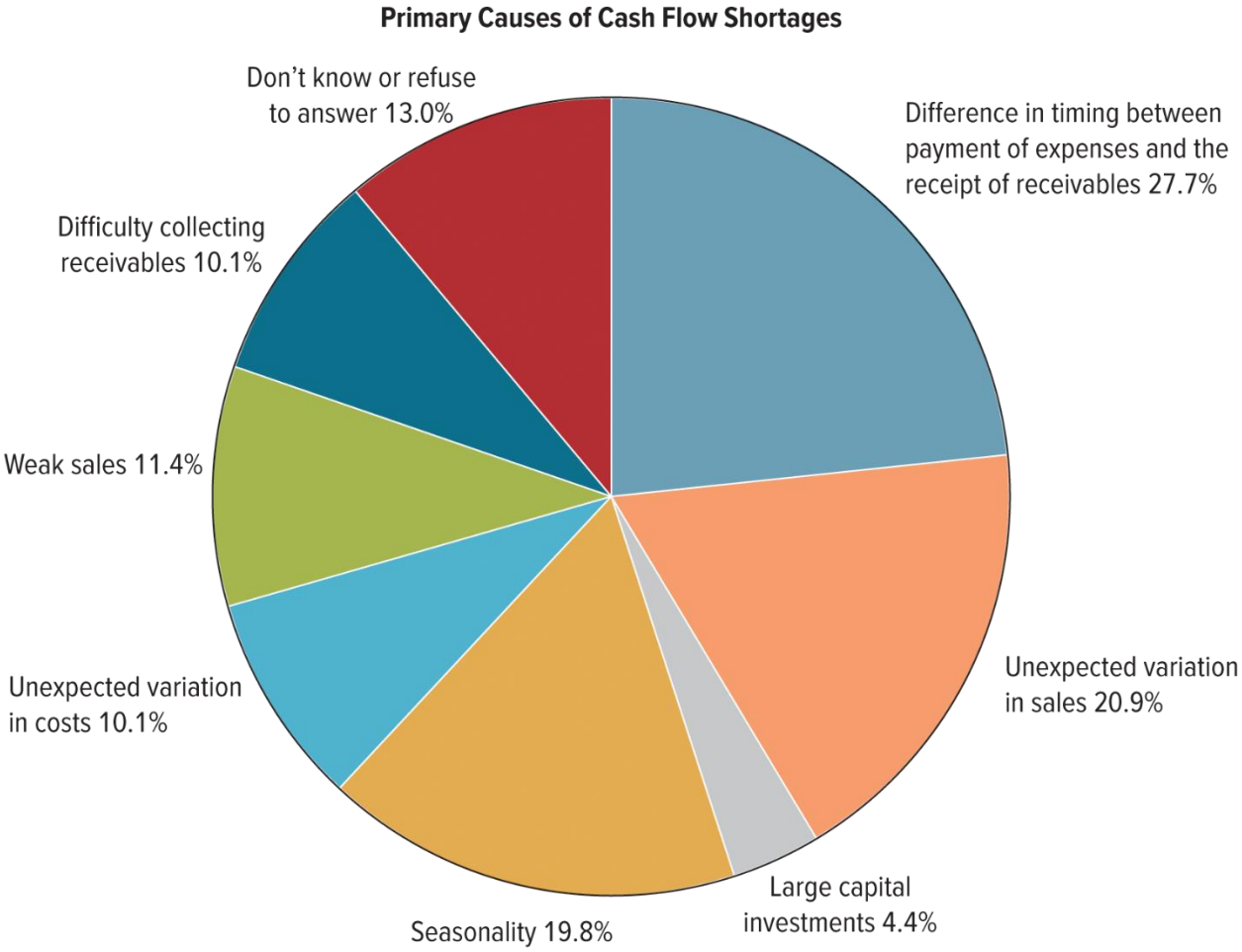

CASH
PURCHASES
PAYABLES TO VENDORS
Labor
Materials
Overhead
PRODUCT OR SERVICE
SALES
RECEIVABLES FROM CUSTOMERS


Primary Causes of Cash Flow Shortages
Don't know or refuse to answer 13.0%
Difference in timing between payment of expenses and the receipt of receivables 27.7%
Difficulty collecting receivables 10.1%
Weak sales 11.4%
Unexpected variation in costs 10.1%
Unexpected variation in sales 20.9%
Large capital investments 4.4%
Seasonality 19.8%

Planning Cash Needs 13-3 Plan for cash needs by developing a cash budget. The Sales Budget: Forecasting Sales Receipts For small businesses, the key to cash planning is the cash budget. Simply put, the cash budget identifies when, how, and why cash is expected to come into the business, and when, how, and why it is expected to leave. The quality of those expectations is important. Making more realistic or accurate estimates about expected incomes and expenses means that the budget becomes a more useful tool for understanding and managing your cash flow and financial situation. Almost all business budgeting begins with a forecast of sales. As discussed in Chapter 12, several methods are used to make sales forecasts. We will illustrate the process of creating a cash flow budget for the fourth quarter of the year based on the forecast sales for Red Jett Sweets that we used in Chapter 12. This illustrates cash budgeting techniques that will be helpful to you when you write your own business plan. The sales budget developed in Chapter 12 is shown here (with minor modifications) as Table 13.1. TABLE 13.1 Sales Budget For many small businesses, the sales forecast is the cash receipts forecast. Businesses such as barbershops, muffler repair shops, restaurants, and all kinds of retail merchandisers do not

provide credit to customers. All sales are made either in cash or by credit card. Despite that, this type of business can have cash flow problems created when sales are insufficient to cover required payments. Each type of business has a different pattern of sales and cash receipts. Some businesses, whose customers make heavy use of credit cards, can face serious cash drains as a result (see The Thoughtful Entrepreneur). Page 480 THE THOUGHTFUL ENTREPRENEUR The Business Costs of Using Credit Cards Credit card use fees quickly add up to material amounts. Consider a successful restaurant that grosses approximately $80,000 per month, with an average per-customer ticket of $20. If 90 percent of customers pay with a credit card, 3,600 credit card charges will be made in a month ($80,000/$20 × 0.9). Assume that the credit card company charges 20 cents per transaction plus 2 percent of the amount charged. The credit card fee for the month will equal $2,160 (3,600 transactions × 0.20) + (80,000 × 0.9 × 0.02). The restaurant will also pay the 2 percent fee on any tips that are added to the bill. If the average tip added is 15 percent, then the added fee on tips charged per month will be another $216. Thus the restaurant will average paying an amount greater than $28,000 in credit card fees per year. So why, you may ask, do small businesses use credit cards? First, accepting credit cards increases sales. Second, the credit card issuer assumes the cost and risk of determining credit worthiness. Many businesses have either relatively few large sales events or highly seasonal sales that complicate forecasting cash inflows. Examples include: Retailers Home builders Custom electric sign shops Machine shops Providers of custom software Real estate brokers Consultants Ski resorts Water parks All businesses that depend on tourism The Cash Receipts Budget As we discussed earlier in this chapter, how much and when money will come into your business is of critical importance. Later, we will discuss specific techniques that you can use to help control both how much and when you will receive money. However, the basis to being able to control your business's money is to understand and be able to predict the patterns of cash flows. Understanding and predicting begin when you prepare a cash receipts budget. If you provide credit to your customers, sales and cash receipts can be very different. If you provide credit, you will always wait some period of time for some of your money—that's what providing credit means, after all. You also, sooner or later, will have some customer who never pays. These two facts about selling on credit create significant differences between the amount of sales and the amount of cash received in any month. The pattern of collections greatly affects the timing of cash flows. As is customary for food trucks and restaurants, the original Red Jett business plan assumes that all sales are cash or credit card sales. However, this is just not realistic for most businesses. Big-box stores such as Walmart, Safeway, and Home Depot simply do not pay cash for inventory. In fact, the common practice of such retailers is to demand that vendors provide lengthy payment terms for inventory.12 So we can demonstrate how to plan for cash receipts from credit sales, we are going to once again

depart from the exact Red Jett business plan by assuming that 75 percent of sales will be made directly to consumers and paid for by using credit cards and cash. Page 481 The remaining 25 percent of sales will be treated as being sold on credit through big-box outlets, such as Albertsons Grocery or Safeway. The terms provided for payment by the outlets allow a 2 percent discount if the payment is received in 10 days after the sale and all payments are due in 30 days. In this example we will assume that Red Jett's experience has shown: 25 percent of credit customers pay within the discount period. 70 percent of credit customers pay on time in 30 days. 5 percent of credit customers do not pay until 60 days. The pattern of cash receipts for the last quarter of 2011 if 25 percent of sales are made on credit will look like Table 13.2A. Note that October sales of $8,778 generate three cash inflows: (1) 25 percent of October credit sales, less the prompt pay discount, are collected in October; (2) 70 percent of the October credit sales will be collected in November; and (3) the remaining 5 percent of October credit sales will be collected in December. TABLE 13.2A Calculate Cash Receipts Schedule Once the pattern of cash collections is understood, the numbers may be converted into the cash receipts budget, as shown in Table 13.2B. As you examine this schedule, keep in mind that the numbers do not exactly match the original Red Jett financial projections from the business plan. This is because we have made changes that affect the timing of when cash is received (such as providing direct credit to certain customers). The original business plan tacitly includes the assumption that all cash from sales is received in the month of the sale and all payments are made in the same month as expenses are incurred. In other words, the original Red Jett financial projections are made using cash-based accounting while the examples here and in Chapter 12 are based on accrual-based accounting principles. TABLE 13.2B Cash Receipts Budget Page 482 There is always some uncertainty about exactly when you will collect cash. However, your experience in business, the experience of other businesses in the industry, and careful monitoring of your credit process lets you make very good estimates. For example, while resort owners may on occasion get advance bookings a year or more in advance, on average, deposits are received about one month in advance. Thus a reasonable estimate of their amount and timing can be made. Forecasting Cash Disbursements A similar approach is used for the forecasting of cash disbursements. The estimates of expenses that you develop in your budget and your knowledge of your business's payment patterns are combined to predict how much and when cash must be paid out.Table 13.3 illustrates the format of a cash disbursements budget. Note that the payment amounts come from the SG&A (selling, general, and administrative) budget developed in Chapter 12. The Red Jett business plan specifically reads that inventory will be purchased and consumed each month. We took the liberty of including an ending balance of raw materials to allow us to illustrate the more common budgeting procedure where ending inventory is maintained. However, we did not change the assumption that

purchases will be paid in the month that the expense is incurred. TABLE 13.3 Illustration of the Format of a Cash Disbursements Budget With the cash receipts and cash disbursements budgets complete, we need to know only how much money we expect to have on the first day of the accounting period to put together a cash budget for the fourth quarter, as shown in Table 13.4. The amount of cash we will have at the beginning of the quarter is simply the amount of cash we had at the end of the prior quarter. We can get this number from either of two sources: (1) the balance of our cash account after the month-end reconciliation is complete, or (2) the amount of cash shown on our pro forma balance sheet. You will find the beginning cash balance for October 1, 2011, in Appendix B of Chapter 8, Cash Flows--Year 1 in the column for October three lines above the bottom: $3,695. TABLE 13.4 Cash Budget To illustrate how projected cash shortages may be handled, assume that Red Jett desires to have a minimum ending cash balance of $5,000 each month. If the projected cash balance is less than this, money will be borrowed from a line of credit. If the projected balance exceeds the desired minimum, then the surplus may be used to pay back some or all of the outstanding line of credit. Most business lenders will not make loans for “odd” amounts, so as you complete Skill Module 13.1, assume that any money borrowed will be the amount of the shortage, rounded up to the next higher $1,000, but not less than $3,000. Page 484 It is a fact that no matter how daunting, you will budget, one way or another. The budgeting process presented here is specifically designed to feed directly into your business plan. The final step in this part of business planning is to put everything together to create a complete set of pro forma financial statements that you can use for raising money, for evaluating your operations, and for managing your business. All the budgets from Chapter 12 and the cash budget developed here are combined at this point to make the comprehensive budget. (Comprehensive budgets are also often referred to as master budgets.) The assignment materials included in McGraw-Hill Connect provide you with a chance to practice the techniques explained in Chapter 12 and in this chapter. The Comprehensive Budget—the Pro Forma Cash Flow Statement Page 485 The statement of cash flows, as shown in Table 13.5, is essentially a restatement of the cash budget, but with the cash coming into your business and the cash going out of your business placed into the categories of cash from operations, cash from investing, and cash from financing. The format illustrated here is the direct method, which is the format now required by GAAP. An example of the indirect method can be found in any of the Intermediate Accounting textbooks, such as McGraw-Hill’s Intermediate Accounting by David Spiceland et al. Notice also that although we did the budgeting process to the nearest $1, when pro forma statements are prepared, they are usually stated with an accuracy no greater than $100 dollar amounts. In fact, for businesses that gross in excess of $10 million per year, pro forma amounts are usually rounded to the nearest $1,000. (Showing the numbers to the nearest $1 makes it easier for you to master these techniques.) TABLE 13.5 Statement of

Cash Flows This completes the discussion of budgeting for planning and control purposes. The set of budgets created in Chapter 12 and here in Chapter 13 make up the financial projections that outside investors expect from entrepreneurs seeking funding. If you follow the examples given, you will increase the accuracy of your pro forma statements while at the same time making the task of preparing them much easier. The spreadsheets that were used to prepare the budget examples are available to your instructor to assign for you to use as models to develop other planning spreadsheets appropriate for businesses other than retail. Skill Module 13.1 will let you practice the entire budgeting process, modeling on the example we have provided here. SKILL MODULE 13.1 A Comprehensive Budget Choose a business that you are interested in owning. Prepare a complete list of the costs of operating this business. To determine the costs of your selected business, examine sources such as Entrepreneur magazine's start-up manuals (https://bookstore.entrepreneur.com/product-category/starting-a-business/startup-guides/) or perform a Google search for the term "business start-up guide" for other books, manuals, and websites. You may also obtain cost information from the Internal Revenue Service, the Small Business Administration, and the audit guides published by the American Institute of Certified Public Accountants (AICPA), franchisers, and industry organizations. Place each cost that you identify into one of the following categories: fixed cost, variable cost, or mixed cost. (Remember: Variable costs are costs that vary with changes in sales or production.) From industry sources, determine what the customary payment terms are from vendors and what terms, if any, your business will be expected to provide to customers. Use this cost information to produce a comprehensive budget, based on the budgeting examples in this chapter. From the cash budget that you have prepared, identify any cash flow shortages. Prepare a plan to deal with the expected shortages. The solution to this skill module will vary among students.

RED JETT Sweets

Cash Flows for the
Fourth Quarter 2011

Cash received from customers	26,301
Cash paid to vendors	
credit card providers	263
sales tax paid to Texas	1,845
raw materials used in production	6,087
Salaries & Wages	12,423
Payroll taxes/benefits	1,074
Rent	3,000
Web site, marketing	300
Telephone	330
Transportation	1,029
Insurance	501
Legal & Accounting	105
Net cash flows from operations	(656)
Cash flow from investing activities	
Purchase of Equipment	–
Cash flow from financing activities	
Investment by owners	–
Cash received from borrowing	3,000
Cash paid on loans	
Net cash flow from long-term financing activities	3,000
Beginning cash	3,695
Net cash increase(decrease)	2,344
Ending cash	6,039

RED JETT Sweets

Cash Budget Fourth Quarter 2011				
	October	November	December	4th Quarter
Beginning cash balance	3,695	6,476	6,257	3,695
Cash receipts	8,767	8,767	8,767	26,301
Total cash available	12,462	15,243	15,024	42,730
Less cash disbursements	(8,986)	(8,986)	(8,986)	(26,957)
Forecast balance	3,476	6,257	6,039	15,772
Desired minimum balance	5,000	5,000	5,000	15,000
Excess (shortage)	(1,524)	1,257	1,039	772
Borrowings (repayments)	3,000	–	–	–
Ending Cash Balance	6,476	6,257	6,039	6,039

RED JETT Sweets

Cash Disbursements Budget Fourth Quarter 2011				
	October	November	December	4th Quarter
Cash paid to vendors				
credit card providers	88	88	88	263
sales tax paid to Texas	615	615	615	1,845
raw materials used in production	2,029	2,029	2,029	6,087
Salaries & Wages	4,141	4,141	4,141	12,423
Payroll taxes/benefits	358	358	358	1,074
Rent	1,000	1,000	1,000	3,000
Web site, marketing	100	100	100	300
Telephone	110	110	110	330
Transportation	343	343	343	1,029
Insurance	167	167	167	501
Legal & Accounting	35	35	35	105
Total cash disbursed	8,986	8,986	8,986	26,957

RED JETT Sweets

Cash Receipts Budget Fourth Quarter, 2011				
	October	November	December	4th Quarter
Total sales	8,778	8,778	8,778	26,334
Less credit sales (1)	2,195	2,195	2,195	6,585
Cash Sales	6,583	6,583	6,583	19,749
Cash collected on accts receivable (2)	2,184	2,184	2,184	6,552
Total cash receipts	8,767	8,767	8,767	26,301

(1) Credit sales are calculated on the Calculate Cash Receipts Schedule as 25% of gross sales.
(2) Cash collected on receivables include: 25% of the current month's credit sales, less the prompt pay discount, plus the amounts due from the previous two months' credit sales. October amount = (.25 × 2,195 × 0.98) + 1,646.

Month of sale	Gross sales	Cash sales (75% of total sales)	Credit sales (25% of total sales)	Prompt pay discount (2% of 25% credit sales collected)	Cash collected on accounts receivable in October	Cash collected on accounts receivable in November	Cash collected on accounts receivable in December	Cash collected on accounts receivable in January 2012	Cash collected on accounts receivable in February 2012
					Oct	Nov	Dec	Jan	
Aug	8,778	6,584	2,195	11	110				
Sep	8,778	6,584	2,195	11	1,536	110			
Oct	8,778	6,584	2,195	11	538	1,536	110		
Nov	8,778	6,584	2,195	11		538	1,536	110	
Dec	8,778	6,584	2,195	11			538	1,536	110
Cash collected from accounts receivable					2,184	2,184	2,184	1,646	
Cash sales during the month					6,584	6,584	6,584		
Total cash collected from customers					8,768	8,768	8,768		
Balance of account receivable at month end					1,756	1,756	1,756		

5% of customers who purchased in August, pay in October.

70% of customers who purchased in September pay in October.

25% of customers who purchase in October pay in the discount period.

RED JETT Sweets

Sales Budget					
	October	November	December	Quarter 4	January
REVENUES					
Unit sales	2,983	2,983	2,712	8,678	3,000
Sales price	$2.75	$2.75	$2.75	$2.75	$2.94
Cash sales	4,389	4,389	4,389	13,167	4,414
Credit card sales	4,389	4,389	4,389	13,167	4,414
Gross Sales	8,778	8,778	8,778	26,334	8,828
Less:					
Credit card fees	88	88	88	263	88
Spoilage & over production	61	61	56	178	62
Sales tax collected	615	615	615	1,845	618
Net sales revenue	8,014	8,014	8,019	24,048	8,060

Managing Cash Flows 13-4 Explain the basics of how cash flows can be kept secured. Why Worry about Managing Cash Flows? Once you are the owner of a small business, you will find that suppliers, vendors, employees, and lenders all demand payment in cash. Because of this, a small business must have easy access to cash to be able to remain viable. Cash can come from only three sources: (1) Cash can be obtained by selling the products and services of the business and collecting cash from customers. This is called cash flow from operations. (2) Cash can be obtained from investments the business has made such as stocks, bonds, land, buildings, or equipment. This is cash flow from investing. (3) Finally, a business may obtain cash through financing. Financing may be in the form of cash donated to the business in return for ownership or in the form of money borrowed from other entities. Page 486 To ensure that the cash your business needs is available when the business needs it, you, the owner, must be proactive. If you wait until your business has a cash shortage, you very well may find that it is too late to cope with the shortage. Your business will fail as have innumerable other small businesses that neglected to arrange ready sources of cash before the cash was needed. Simply put, it is absolutely essential for business success that you stay on top of your cash flows. You really should plan continuously for the cash to be received and the cash to be paid out. A smart owner of a small business will review cash flow requirements once each week at the minimum. In this section we will look at control methods you should implement to be sure that the cash you

collect from customers is properly recorded and is kept safe from theft. Protecting Cash from Being Stolen Cash is the most desired asset and easiest asset to steal from your business. While there is some chance that theft will be committed by criminals coming into your business carrying a gun, the vast majority of business theft is committed by employees. This is so for two reasons. First, employees have access to cash in the course of doing their jobs. Second, employees are often in a position to be able to hide the theft. According to the U.S. Chamber of Commerce,13 the most common means by which employees steal cash from their employers are through misappropriations of cash accomplished using one of three categories of theft: (1) larceny and embezzlement, which are methods employees use to steal cash after it has been received and recorded in your books; (2) skimming, which is the practice of "pocketing" money from customers and hiding the theft by not recording the sale; and (3) phony disbursements, which are most commonly accomplished by making fake invoices that are subsequently paid by your ordinary cash disbursement procedure. There are many variations on these broad categories, including such practices as creating "phantom employees," whose paychecks go to the accounts of the thieves, tampering with legitimately processed checks, and conducting billing scams. Of these three broad categories, skimming is the most prevalent. Embezzlement, however, is the means by which the greatest dollar loss occurs. Partly, this is because of the nature of the transactions used in each fraud. Skimming is usually done at the point of sale: a bartender who "forgets" to enter a sale into the register or a salesclerk who scans the code for a $20 jacket while checking out a $500 leather coat for a confederate. Embezzlement, on the other hand, usually happens in your accounting office. Any single skimming incident is limited to the sales amount. A crooked accountant can steal the entire value of your business. To protect your business from having its cash drained by employees, you need to take specific steps, the first and most important of which is to hire honest and ethical people into your business. Do thorough preemployment background checks including criminal records, previous employer, credit history, official transcripts from colleges, and references. The second and also most important thing is to develop and enforce a system of effective internal control over which employees may handle cash and which employees may account for cash. When forensic accountants investigate cases of employee embezzlement and theft, they always find that (1) control over cash receipts and disbursements is lax, and (2) a trusted employee is allowed to receive and disburse cash while simultaneously keeping records of the transactions. In almost every case, the loss could have been prevented by having effective separation of duties: making sure that the employee who actually handles the cash is a different employee that the one who has responsibility for recording the cash inflows and outflows. Other steps you should take are: Run credit checks periodically on all employees who have material access to your finances. Identify opportunities employees have to steal from you.

Examine every aspect of how money flows into and out of your business, and evaluate the inherent risks. Investigate budget variances carefully. Page 487 Have a formal audit conducted, including your internal and external control procedures. Implement a formal statement of ethics policies. Provide coaching, counseling, and training to employees to ensure they understand the ethical standards set for your business. Terminate the employment of those who fail to achieve standards within a reasonable time. Provide education about the economics of your business to employees. Be sure each understands that the theft of a single dollar means that you will have to increase sales by $10, just to recover the value of the theft.

Preventing Cash Flow Problems 13-5 Implement strategies for coping with cash flow problems. Benjamin Franklin's adage "An ounce of prevention is worth a pound of cure" truly describes the best way to manage cash flows in a business. It is much easier to prevent such problems than to solve them once they begin. Several techniques can help prevent getting into a cash flow problem in the first place. The best prevention is attending to and understanding your business's operations—its patterns of generating cash inflows and outflows—which should help you maintain an accurate forecast of cash needs. However, planning alone usually is not sufficient to ensure that cash flow needs are met. The assumptions made may be incorrect. The economy may suffer an unforeseen shock, such as a natural disaster, war, or energy shortages. Fashions and preferences change, often in unexpected and unpredictable ways. As airline pilots often point out, "Careful planning is no substitute for full fuel tanks." Steps to Take for Effective Cash Flow Management 1. Review your cash needs on a set schedule. Set aside a specific day and time each week during which you will examine your accounting records and make a list of all cash flows that will occur during the upcoming week. This review is fairly easy to do, if you are using a computerized accounting system. You need only have the system produce an accounts receivable report that lists those accounts that will become due in the next week and those accounts that are currently past their due dates. This report will give you insight into the amounts that should be received. Next, you need to produce an accounts payable report, again listing the amounts that will become due in the next week, and those accounts that are currently due, but not yet paid. The sum of these payables is an important indicator of how much cash will be needed immediately. The second part of the cash flow report consists of reviewing any recurring payments that you receive such as payments for product you have leased to customers and any principle and interest on product that you have sold to customers on credit. Then you need to include regular payments that you must make such as wages, rent, submissions of taxes collected (employment taxes, sales tax collected, etc.). 2. Arrange a business line of credit or

revolving loan before you need it. It is a rare small business that never experiences cash shortages. So, knowing the likelihood that this will happen, you should act before you have a shortage. If you have an established relationship with a bank, sit down with the business loan officer and explain what you want and why you are seeking it now. It should be no surprise if you discover that the banker is not only sympathetic to your need, but is readily willing to help you make the necessary arrangements. If for some reason you cannot arrange for a revolving loan or a line of credit at your bank, you should consider setting up an arrangement with a factoring company that will allow you draw funds, with the loan being collateralized with your accounts receivable or your inventory. 3. Obtain a business credit card. As is shown in Exhibit 13.1, almost two-thirds of small businesses rely on credit cards to cope with cash shortages. Credit cards offer several features that can be very valuable to small business other than just readily available credit. Many business credit cards provide statements that are highly detailed, showing what was purchased, where it was purchased, and the expense category to which the item belongs. Some even have apps that allow automatic downloading of the statements into small business accounting systems. EXHIBIT 13.1 Source: Data from Jessica Battisto, Mels de Zeeuw, Claire Kramer Mills, Scott Lieberman, and Ann Marie Wiersch, Small Business Credit Survey, Federal Reserve Banks of Atlanta,
2017, www.fedsmallbusiness.org/medialibrary/FedSmallBusiness/files/2018/SBCS-Employer-Firms-Report.pdf (accessed July 13, 2019). Page 488 4. Collect your receivables—do not become your customers' interest-free bank. Good sense will tell you that you provide credit only to those customers who will actually pay what they owe. If you allow a customer to take your product for a promise to pay and you do not believe that that customer actually will pay, then you have given a gift, not made a sale! Before you give credit to any customer, establish the credit terms. State exactly when the payment will be due and what late fees or penalties will be assessed if that date is missed. Document each part of the transaction and be sure that you have your customer’s signature on all sales agreements, contracts, and delivery receipts. Offer discounts for early payment. This is a proven incentive for many businesses to pay promptly. Of course, you should do the math and be sure that the discount you offer does not cost you more than the value of getting paid more quickly. (Look to the Learn More Online box for more about this topic.) Set up and use a billing system. Be sure to send a reminder approximately a week before the bill is due. When a customer misses the due date, send a billing statement. If your customer does not respond to the statement, call the customer and politely ask for payment. Simply asking demonstrates that the payment is important to you and many times the customer will react by paying immediately. 5. Plan and schedule your payments. This is actually part of the cash budgeting process, which is discussed in this chapter in the section “Planning Cash Needs.” Planning to make payments when you know the cash will be available

relieves the stress of unexpected cash demands. Also if you have a cash budget and if you regularly compare actual spending to the budgeted spending that will help keep your business from overspending which leads to cash shortfalls. Page 489 Unless a vendor offers a significant discount for early payment, examine the credit agreement to determine the last day that payment may be made without incurring a penalty or harming the business relationship with the vendor. 6. Use online collections and payments. Have your bank make payments for you and receive payments for you through direct bank transfers. These transactions are less expensive than the process of making paper checks. They also offer the advantage of the record keeping and reporting done by the bank. And, finally, they reduce the time between making and receiving payment to very near zero. If your customer pays you with a paper check, you may have to wait up to a full business week before the money is actually available to you. With a direct transfer, once the transaction is recorded, you have full access to the money. Techniques to Increase Cash Inflows There are several simple methods that can be used to increase the amount of cash flows while simultaneously reducing the effects of irregular or seasonal patterns of receipts. Five proven techniques are: Taking deposits and progress payments. Offering discounts for prompt payment. Asking for your money. Taking on noncore paying projects. Factoring receivables. Deposits and progress payments can greatly smooth the receipt of cash in businesses which otherwise have highly variable levels of cash flows. For example, many businesses that involve summer activities, such as water parks, are open as few as 100 days per year. However, many costs, such as rent, taxes, maintenance, security, and utilities, continue year-round. These types of businesses often choose to obtain cash flow during the closed season by selling season tickets or other forms of advance purchase.14 Progress payments are payments that are received from your customer as you achieve predetermined goals in a lengthy project. Progress payments are very common in the construction industry where individual projects may take years to complete. Requiring deposits is advisable in many kinds of businesses in which the process to fulfill a contract with a customer requires significant amounts of time or additional capital. Examples of this type of business are building contractors, consultants, and manufacturers of custom machinery. Discounts for prompt payment will often motivate your customers to make payments in a timely manner. It is common for wholesale suppliers to offer their customers terms of a 2 percent discount for payment within 5 to 10 working days. You must carefully balance the cost of providing the discount with the cost of obtaining needed cash from other sources.15 The cost of a discount for prompt payment is deceiving. Consider that you are operating a wholesale distributorship of plumbing supplies, with an average margin on sales of 22 percent, and you provide a 2 percent discount for prompt payment. A customer purchases $100 of supplies on account. What is the effect on your profitability? Your profit margin will decline from $22 to $20, a decline in gross margin of 9.1 percent. (See Table

13.6.) TABLE 13.6 Effect of Prompt Payment Discounts on Gross MarginTable Summary: Table divided into two columns summarizes value of profit margin based on available discount. Column 1 notes the account heads with column 2 showing the corresponding amount in dollars. Gross sales amount $100.00 Less cost of goods sold 78.00 Gross margin 22.00 Less prompt pay discount of 2 percent 2.00 Net margin $ 20.00 Percentage reduction in margin ($2/$22) 9.1% Asking for your money is at once the most simple and the most effective way to obtain payment from customers.16 Surprisingly, many owners and managers of small businesses are loath to call customers and request that they pay what they owe. However, you will find that few, if any, businesspeople will be offended by a polite phone call requesting payment. This is especially true of the owners and managers of small businesses who have encountered cash flow difficulties themselves. Very often, a request for prompt payment will be honored, if possible. Of course, there is an implied obligation that, if at some time in the future the customers encounter cash flow problems, you will also be understanding and cooperative, helping them through their own rough spot. Page 490 Taking on noncore projects can often provide desperately needed cash during slow business periods. Possibilities are limited only by your imagination. Many sign installers, during slow times in early spring, often will send a crane truck and operator to hoist air-conditioning and other equipment onto the roofs of buildings. Bill Millers's Barbecue of San Antonio, Texas, for a fee, deep-fries whole turkeys for customers during the slow restaurant periods immediately preceding Thanksgiving and Christmas. Rowan Oak House B&B in Salisbury, North Carolina, as do many bed and breakfasts during their slow seasons, sells "murder mystery weekends" that include lodging, breakfast, dinner, and a role-playing mystery game, complete with costumes and props. Despite the attraction of picking up immediate revenues by taking on a project that is outside the core competencies of your business, the practice is often risky and in extreme cases can result in lessened sales in the core business. The Thoughtful Entrepreneur illustrates this disadvantage. THE THOUGHTFUL ENTREPRENEUR Dangers of Taking on Noncore Business Projects There are several caveats to be considered in taking on noncore projects: First, any noncore project should be such that it can be completed in a reasonable time. Second, the project should be clearly specified, with clearly defined outcomes or stopping points. Third, no noncore project should be taken solely for the purpose of "churning dollars." Noncore projects can sometimes provide desperately needed cash. However, the time for such projects is taken from time that otherwise would be used for your core business. When the environment for the core business improves, noncore projects can become very costly distractions. Specifying outcomes and stopping points prevents making noncore projects into permanent business, which then competes for limited resources with the core business. It is always tempting, when faced with a need for cash, to offer deep discounts to gain cash inflows. This is counterproductive, however, for two reasons: (1)

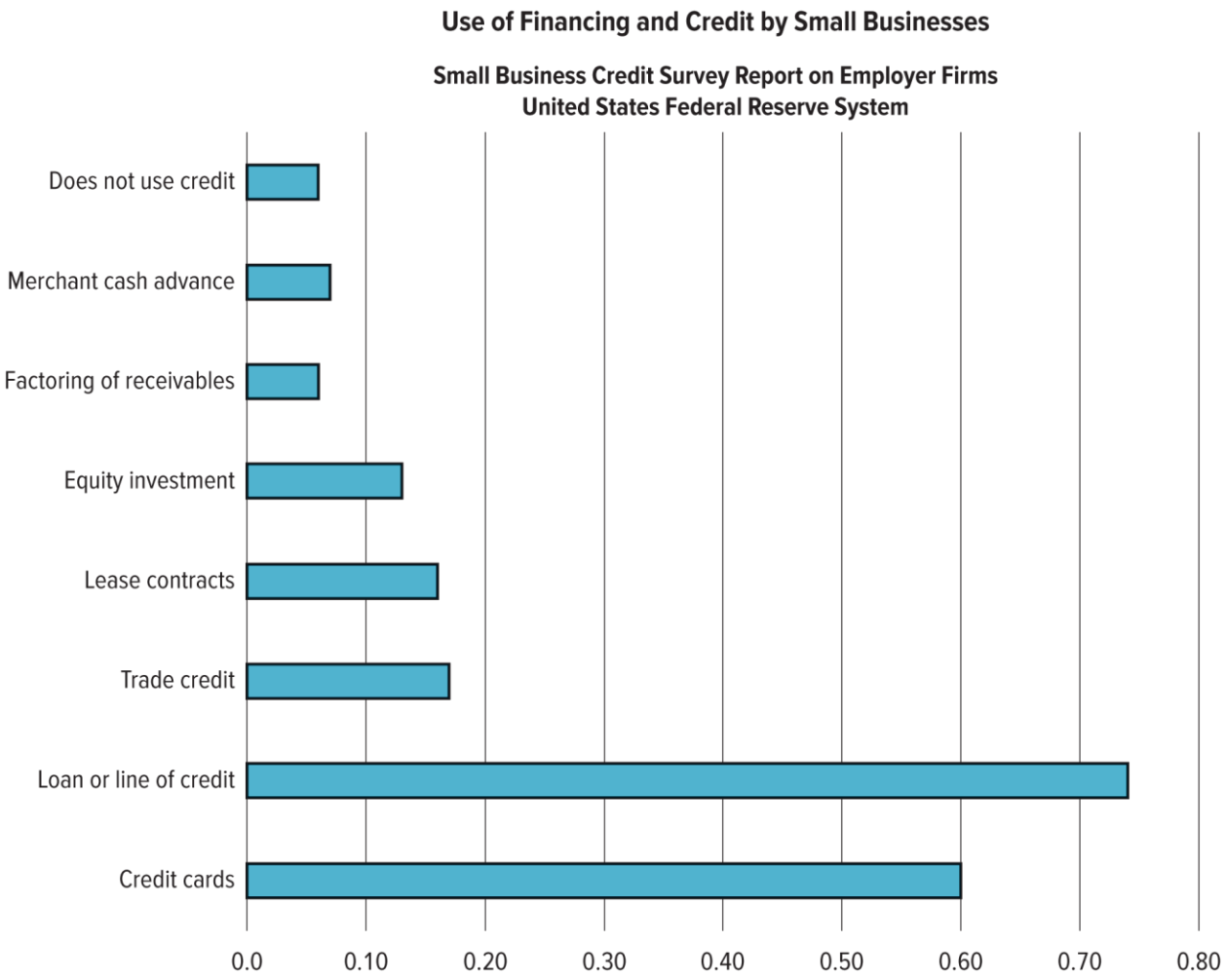
discounting in either your core or in an associated business devalues your product or service, which will limit the price that can be charged when conditions improve; and (2) accepting business that does not provide an adequate margin reduces profitability for the entire year, which can negatively affect your ability to arrange financing and investment when business conditions improve and additional funding is needed for growth. Page 491 Factoring receivables should be considered only if other, less expensive methods to increase cash flows have not been sufficient.17 Factoring is a method of borrowing against receivables. The factor will usually lend between 75 and 80 percent of the amount of uncollected receivables. As the receivables are collected, the factor deducts a proportional principal amount and remits the remainder, less its fee, typically 5 percent of the gross receivables, to the business.18 To factor your receivables, your customers must have good credit ratings. Your credit rating is irrelevant because it is the customers who pay the factor, not you. To provide for losses on uncollectible accounts, some factors either hold back some of the remittances or charge back any uncollected amounts at the end of a specified contract period. The Thoughtful Entrepreneur illustrates the cost of borrowing against your receivables (factoring). THE THOUGHTFUL ENTREPRENEUR Effect of Borrowing against Your Receivables It is tempting to use your receivables to obtain immediate cash, but doing so is expensive. Suppose your business has $100,000 in accounts receivable. If you factor these receivables, you will obtain an immediate $75,000. Now suppose a customer who owes $10,000 pays the full amount. The factor will deduct 75 percent in repayment plus 5 percent of the gross payment amount. You will receive the remaining $2,000: Customer payment $10,000 Repayment to factor (7,500) 5% factor fee (500) Balance received 2,000 If your factored receivables are all collected within 90 days, you will have paid $5,000 to receive $75,000 immediately plus $20,000 over three months, a total of $95,000. On an annual basis, this is essentially the same as paying 22 percent interest. Techniques to Decrease Cash Outflows Decreasing cash outflows is as important as increasing cash inflows. Regardless of how much money you’re making, conserving cash is essential. All companies have certain costs that cannot be avoided and cannot be financed. Examples of unavoidable cash payments include payroll, rent, utilities, and withholding taxes. If you do not have enough cash to pay your employees, keep the door open, the lights burning, and the tax collector at bay, the business will fail, no matter its potential or paper profits. As with cash inflows there are two factors of cash outflows that must be controlled: (1) the amount of cash being paid out and (2) the timing of cash being paid out. Controlling the amount of cash being paid out is primarily a function of making good purchasing decisions and avoiding waste. By purchasing in the appropriate quantities with the appropriate quality at the appropriate times, the need to make cash payments can be aligned with the receipt of cash, to the extent that the nature of the business allows. Every business that maintains inventory has an optimal level that minimizes the total cost

of (1) carrying inventory, (2) processing orders, and (3) losing sales due to being out of stock. The optimum level of many other business resources can similarly be determined. Setting reasonable standards and carefully monitoring usage and stocking levels reduce the amount of cash required for these essential business resources while maximizing revenues. The determination of optimum stocking levels is fully discussed in Appendix A of Chapter 15. Page 492 Waste also affects cash outflow. Resources that are wasted represent cash that was paid out with no economic benefit. Almost any resource can be wasted. You can waste the time of your employees by requiring procedures such as record keeping and reporting that are not useful for management. You can waste primary materials by inefficient cutting and by allowing materials to spoil, break, or be stolen. You can waste rent by maintaining space that does not produce revenue. The list of potential waste is endless. Most of us become so accustomed to our ways of doing business that we often do not recognize waste when we see it. For years, restaurants paid people to haul away old cooking oils and grease. If there was no one to haul the oil, it was often dumped onto gravel parking lots or poured into solid waste dumps. The oil was indeed scrap—it had no further economic use in the restaurant. The oil was not waste, however, until it was poured out. There was an economically valuable use for the oil in making cosmetics, animal feed, paint, and chemicals. Today, the waste oil from restaurants and commercial food manufacturers is so valuable that not only is there an active market for waste oil, but organized bandits often steal the oil at night. Oil that once was considered trash is today a significant source of revenue. It takes insight into your particular business to determine what constitutes waste.19 Suppose you have a sizable store of the leftovers from cutting plywood to make your product. It is certain that the plywood pieces are scrap. But are they waste? To determine if these odd pieces of wood are waste, you need to find out (1) if there is a cutting pattern that will reduce the amount of leftover wood; (2) if you cannot reduce the amount of scrap, is there an economically valuable use for it; and (3) what it is costing you to keep the scrap pieces on hand. You may find that the wood is scrap, but the waste is the space that it occupies—space that you could otherwise put to productive use. In addition to making wise purchasing decisions and avoiding waste of resources, there are several strategies that will provide savings in cash outflows, including:20 Trade discounts. Noncash employee incentives. Use of temporary agencies. Consignment. Barter. Control of the timing of paying out cash. Negotiation of terms with suppliers. Timing of purchases. Gaming of the payment process. Some of these should be familiar because they are mentioned in the discussion of bootstrapping in Chapter 6, where bootstrapping is introduced as a way to make possible a part-time business operating on a very limited budget. But the ideas of bootstrapping, as we can see below, also apply to more established kinds of small businesses. Trade discounts are given by suppliers and vendors to encourage customers to make timely payments on account. In effect, you are borrowing

from the vendor at the discount rate for the number of days that you may wait to pay after the cutoff date for receiving the discount. The rule of thumb for trade discounts is that you should always capture discounts of 1 percent or greater, if the billing period is less than 30 days. If the supplier provides payment terms exceeding 30 days, then you must perform a quick analysis to determine whether taking the discount or delaying payment provides the greater value. To decide whether to take the discount, compare the annual effective interest rate of the discount to your cost of borrowing from other sources. Then choose the one with the lower annual effective rate. The Thoughtful Entrepreneur will guide you through the process of determining the value of accepting or refusing a vendor's offer of a prompt-payment discount. Page 493 Noncash incentives for employees is the most widely used technique to reduce the amount of cash that must be paid out of the business. The most common such incentive is to grant stock options, which give the employee the right to purchase company stock at a fixed price in the future. The hope of the employee is that the stock will go up significantly in price and, that upon either selling or exercising the option, the employee will realize large gains. Other noncash incentives include autonomy, a chance to be creative, flexible hours, telecommuting, praise, training, career opportunities, the chance to work with (or learn about) advanced technology, responsibility, benefits packages (health, vacation, retirement, etc.), a supportive or protective culture, and even small prizes and awards.21 THE THOUGHTFUL ENTREPRENEUR Should I Take a Supplier's Discount for Payment? Assume that Red Jett Sweets can borrow from the bank at 11 percent. The supplier of raw materials for the cupcakes provides credit terms at a 1 percent discount, if paid within 10 days of the receipt of the invoice, and the full amount must be paid in 30 days. To see if the heuristic ("take any discount of 1 percent or greater when the payment period is 30 or fewer days") holds in this case, calculate the annual effective interest rate: Annual effective rate = Discount/(100% – discount) × 365/(Payment period – Discount period) AER = 0.01/(1.00 – 0.01) × 365/(30 – 10) AER = 0.01/0.99 × 365/(20) AER = 0.01010101 × 18.25 AER = 18.43% Yes, indeed, the heuristic holds. 18.43 percent is much greater than is 11 percent. Red Jett should pay within 10 days, taking the 1 percent discount on the goods. Suppose, however, that the vendor's terms were 1 percent discount if paid in 10 days, due in full in 45 days after receipt. If you do the same arithmetic, the result is 10.53 percent. With the more generous terms, it is better for Red Jett to delay payment to the full 45 days. Use of temporary agencies is another way to reduce the cost of employees. If you do not need a full-time, permanent employee, agencies can provide educated, trained, and skilled workers who will work only as much as you need. It is common today for small businesses to contract with agencies to provide all sorts of temporary employees, from unskilled labor to a chief executive officer. Consignment is the practice of accepting goods for resale without taking ownership of them and without being responsible to pay prior to their being sold. Consignment sales are the norm in the

operation of art galleries. Living artists usually make an exclusive contract with a specific gallery to display their works. When a piece of art is sold, either by the gallery or by the artist, the gallery arranges for receipt of payment, delivery of the art, and guarantee of the provenance of the art, in return for a percentage of the sales price. Other industries that use consignment sales include the distributors of salty snacks (potato chips, corn chips, peanuts, etc.), specialty food items, used furniture and antiques, sporting goods, and used automobiles. The advantage of receiving goods on consignment is that they remain the property of the consigner and do not have to be paid for until sold, thus matching cash receipts with cash disbursement. Barter is the practice of trading goods and services without the use of money. For example, an accountant may trade accounting services to a sign company in return for the sign company manufacturing and installing a sign at the accountant's place of business. Barter alleviates the need for cash by trading good for good, service for service, or service for good. Barter is legal in the United States and is widely practiced among small businesses.22 Although money is not used in the transaction, the legislature, the IRS, and the courts have consistently ruled that barter is a taxable transaction, except in case of trades of "like-kind" goods or services. In other words, you may trade real estate for real estate, or machinery for machinery without creating a taxable transaction. However, if you trade your airplane for real estate or if you use any amount of money in the trade, the transaction is subject to tax. Page 494 Because of the provision for tax-free treatment of like-kind trades, barter transactions are susceptible to misuse to avoid paying taxes. As a result, the rules for reporting barter transactions are restrictive and quite complex. Misuse of barter is usually considered fraud by the IRS and can lead to criminal penalties. There are numerous services, organizations, and websites that facilitate barter transactions. For example, the Open Directory Project (http://odp.org/Business/International_Business_and_Trade/Barter) lists over 100 online barter clubs, organizations, brokers, exchanges, and for-profit companies that support barter. There are even trade associations for the barter industry such as the International Reciprocal Trade Association (www.irta.com) or the National Association of Trade Exchanges (https://www.natebarter.com/). Controlling the timing of paying out cash can be accomplished through a number of methods. The strategy is not to unnecessarily delay paying, but to arrange payment schedules in such a way that due dates match the times when cash is available. Negotiating terms with suppliers is a common, acceptable method for controlling when payment must be made for goods and services. For example, many building contractors who build single-family houses expect to complete and sell a house in a 90-day period. Most builders negotiate with primary suppliers such as lumberyards and plumbing wholesalers to finance the materials needed to build a house. The suppliers are protected by having a lien on the house that must be paid before title of the house can be passed to the buyer. Similar arrangements are made to finance many types of long-term

projects, as well. Often the winning bidder on a large project will make the major suppliers subcontractors who agree to accept payment when the general contractor is paid. Timing purchases is a method of controlling the timing of cash outflows that is invisible to suppliers and vendors. Your specific reason for placing any certain order on any certain day is not apparent. However, knowledge of the payment policies of suppliers can provide considerable leeway in when bills must be paid following delivery of goods. For example, it is common for wholesale suppliers to have payment terms that define an on-time payment as being any payment made on or before the tenth day of the month following purchase. Knowing this term, you can gain additional time to pay by delaying purchase until the first day of the month. This provides up to 41 days before payment must be made without being classified as late. Were you to purchase on the last day of the month, you would have only 10 days to make a timely payment. Gaming the payment process is a common, if a bit underhanded, method of controlling cash outflows. Methods range from simply not paying a bill when it is due to sending checks that you've "forgotten" to sign, to sending checks in payment and then stopping payment after the payment has been recorded, but the check has not yet cleared. Very few business owners and managers are proud of taking such measures, but most will, if promised confidentiality, admit to having done one or another in times of cash crises. Gaming payments can be quite costly, however. You may well get away with any one of these strategies with any single vendor one time. The more often you game payment, the more certain it becomes that your business credit rating and reputation will suffer as a result. Being consistently late in payment, regardless of gaming strategies, will cause a decrease in your business's credit worthiness. It is not uncommon for suppliers and vendors to refuse to do business with customers who regularly attempt to game the process. See the Learn More Online box below for more information on discounts for prompt payment. LEARN MORE ONLINE Learn more about the topics above at these sites: U.S. Small Business Administration (net 30 accounts help conserve cash flow): www.sba.gov/blog/how-net-30-accounts-help-conserve-business-cash-flow U.S. Department of Treasury (discount formula and calculator): https://fiscal.treasury.gov/prompt-payment/calculator.html U.S. Department of Treasury (prompt payment FAQs): https://fiscal.treasury.gov/prompt-payment/faqs.html



Controlling Cash Shortages No matter how well you plan or how well you manage your business, sooner or later you will experience a significant cash shortage. Causes of cash shortages range from the obvious, a customer fails to make an expected payment or goes out of business without paying at all, to the obscure—an economic shock, such as a plant closing, natural disaster, or political turmoil like an oil embargo or war. During a time of economic shock, you may not attain your sales goals, and you may not be able to collect from customers as they suffer from the same bad economy. However, many, if not all, your bills go on, demanding payments that you no longer have the money to make. Another often overlooked cause of cash shortages is a surplus of good news: Your business has proven to be wildly successful, and sales are growing at an exponential rate. This situation is often referred to as the growth trap.23 Because of increased sales, you need more labor, more materials for your product, more factory space, and more warehouse space to store

completed products until they can be shipped to your customers. All this growth requires money, and lots of it. However, as discussed above, sales take time to convert into money. The product must be made and shipped before any customer will pay. If you are offering credit to customers, you will have to wait even longer to receive that payment. You are in a "trap" made by growth: Growing will produce more money, but right now you need money to grow. There are numerous strategies to handle cash shortfalls, including laying off employees, slowing payments for purchases, stepping up collection efforts, selling investment securities, or using your own money. A survey of small business owners (see Figure 13.5) found that there are at least eight strategies employed by small businesses for handling money shortages. These are, in the order of their frequency of use: Use personal money. Borrow. Adjust scheduled purchases. Adjust scheduled payments. Try to collect money due. Sell investments. Sell receivables. Lay off employees. Page 496 Of the strategies employed, the three most common, in order of use, are (1) use personal money, (2) borrow, and (3) adjust scheduled purchases. Together, these three strategies were used by over 60 percent of the respondents to the survey.

In Review Managing cash flows is at the same time the most important and most difficult task faced by owners and managers of small businesses. What makes it so difficult is the constant juggling act between the timing of cash coming into the business and cash going out of the business. You now have the basics of understanding what constitutes money, cash, revenue, and expense. You know that they are related, but very different concepts. Money and cash are economic realities that are essential for business operation. Revenues and expenses are solely accounting concepts that are used primarily as tools to measure business activities. Revenues and expenses are used to predict the amounts and timings of cash inflows and outflows primarily through the budgeting process, which starts with forecasting sales and ends in a cash budget. Since most small businesses depend on their bank checking accounts as a money management tool, the most basic money management skill becomes a bank reconciliation. The best way to go about this is to reconcile the bank balance for items that you know about but are unknown to the bank, and adjust your book balance for those items that are reported by the bank, such as their fees. When done accurately, this type of reconciliation results in the bank and book balances reporting the identical "true" cash position of the firm as of the date of the bank statement. There are numerous ways that both the amounts and timings of cash flows can be managed, to some extent, by the owner or manager of a small business. Some cash management techniques are very inexpensive and really a matter of common sense, such as not wasting resources and not buying anything that is not absolutely needed for the business. Other techniques incur costs in the form of interest expense and use of

management time. All of the techniques discussed in this chapter are used daily by small business managers across the world.

CHAPTER SUMMARY 13-1 Explain the concepts of money, cash, and cash equivalents. Money is a special type of information with three primary purposes—making exchanges, keeping track of wealth or value, and storing wealth for future use. What makes money "money" is the belief users have about the information contained in the money. Profit is not money. Rather, profits are information about money derived from the difference between two accounting items, revenue and expense. Cash is composed of the three forms of money that can be immediately used to make payments: currency, demand deposits, and traveler's checks. Cash equivalents are assets that may be turned into cash in a few hours to a few days. Cash equivalents include marketable securities, commercial paper, and debt investments that mature in less than three months. Currency is the most common form of cash and is composed of bills and coins that represent money. Demand deposits, which include checking accounts, savings accounts, and traveler's checks, are the second most common form of cash. Marketable securities are made up of stocks and bonds for which there is an active auction market. 13-2 Explain the importance of managing your business's cash flow. Almost two-thirds of small businesses experience money problems because of: Difficulty collecting money due from customers. Seasonal variation in sales. Unexpected decreases in sales. Page 497 The cash-to-cash or operating cycle is the time it takes for a business to obtain resources, produce and sell its product, and collect cash from sales. Many small businesses experience difficulty or failure, because of: The mismatch in time between receiving cash and spending cash. The mismatch between the size of payments received and the size of payments that must be made. 13-3 Plan for cash needs by developing a cash budget. A cash budget identifies when, how, and why cash is expected to come into the business, and when, how, and why it is expected to leave: For businesses that make sales by cash or by credit card, the sales forecast is the cash receipts forecast. If you provide credit to your customers, you will always wait some period of time for some of your money. You also, sooner or later, will have some customer who never pays. Cash receipts and cash disbursements budgets are used to put together a cash budget. All budgets are combined at this point to make the comprehensive budget. 13-4 Explain the basics of how cash flows can kept secured. You should implement and enforce effective internal controls, especially enforcing separations of duties. You must hire ethical employees and monitor their performance. You should use a dropbox, or make arrangements with a bank to accept and payments from customers. You should review your cash balance at least once weekly. 13-5 Implement strategies for coping with cash flow problems. The best way to prevent cash flow problems is to pay attention to and

understand your business's operations and patterns of cash flows. Five proven techniques to even out cash flows are: Taking deposits and progress payments. Offering discounts for prompt payment. Asking for your money. Taking on noncore paying projects. Factoring receivables. Controlling the amount of cash being paid out is primarily a result of making good purchasing decisions and avoiding waste. No matter how well you plan or how well you manage your business, sooner or later you will experience a significant cash shortage. Causes of cash shortages include a customer failing to pay or going out of business, and economic shocks, such as a natural disaster or war. The growth trap causes cash flow problems when the rate of growth is faster than the operating cycle. The three most common ways to handle cash shortages are (1) using personal money, (2) borrowing, and (3) adjusting scheduled purchases. Appendix: 13-6 Reconcile bank and company book balances. Your business and book balances will often disagree because of differences in the timing and recording of receipts and disbursements. Reconciliation gives you a way to estimate the bank's available balance for the purpose of managing your cash flows. Regular reconciliation of bank and book balances identifies any mistakes that were made by either the bank or by your own bookkeeper—and those mistakes happen. Performing a reconciliation checks the accuracy of both the bank and business records, providing an accurate statement of the value of cash held by the business. A reconciliation lets you know about items on the bank statement that would not otherwise be included in the business's accounting records.

KEY TERMS money cash cash equivalents currency demand deposits marketable securities commercial paper short-term debt bearer cash flow management cash-to-cash cycle operating cycle payables receivables cash budget cash receipts budget cash disbursements budget comprehensive budget deposits and progress payments discounts for prompt payment noncore projects factoring receivables trade discounts noncash incentives consignment barter timing purchases gaming the payment process growth trap reconcile company book balance bank ledger balance bank available balance clearinghouse overdraft nonsufficient funds (NSF) charge back

DISCUSSION QUESTIONS Why is it important to plan for the amounts and timing of cash inflows and outflows? What is money, and how does it differ from profits? What are the primary purposes of money? How do the economic and accounting definitions of cash differ? What are the relationships among planning, budgeting, and forecasting? Discuss

five methods commonly used to increase cash inflows. Discuss four methods to decrease cash outflows. The text calls the practice of gaming the payment process “underhanded.” What is your opinion of this common practice? Does it have any ethical implications?

EXPERIENTIAL EXERCISES Make an appointment with a loan officer at your bank who handles small businesses. Conduct an interview to find out the following: Will the bank lend to small businesses, using receivables for collateral? Does the bank ever factor receivables or act as a collection agent for receivables? Form a group from your classmates who completed Exercise 1. Collect your findings into a chart. Compare and contrast bank offerings. Present your findings to your class with a recommendation of which banks in your area offer the best small business support. Do a Google search, using the name of your city and “online banking.” Examine the sites returned to determine: How often is the account balance updated online? Are monthly account statements available online? How far back (one month, two months, one year) can you retrieve statements and transactions? Page 499 Can you electronically transfer funds among your accounts? Can you electronically pay bills? Can you download bank account information into your small business computerized accounting system? If so, which systems are supported? What is the cost of online banking? Make a chart of your findings and report to your class. Do a telephone survey of banks in your area. Ask: Do they use electronic check clearing? If they use a clearing bank to manually clear checks, ask what bank they use. Ask what the average period of float is for the bank. Ask what the bank’s policy is for nonsufficient funds: Does it pay to the limit of ledger balance or to available balance? What other provisions does the bank make to help small businesses avoid having checks returned NSF? When does the bank make available funds from deposited checks? Write a report of your findings and present it to your class. Form a group from your classmates who completed Exercise 4. Collect your findings into a chart. Compare and contrast bank offerings. Present your findings to your class with a recommendation of which banks in your area offer the best overdraft protection to small businesses. Use the resources of your library and the Internet to identify five credit card processing providers. Contact each and determine the following: The cost of equipment to be able to accept credit card charges. The transaction cost, if any. The amount of discount charged for: Physically swiped card charges. Charges accepted over the telephone. Online charges taken on the Internet. How long does it take between accepting a credit card for payment and receiving the cash in your bank account? Report your finding to your class. Assume that you are preparing to open a new business. You need both an on-location sign and professional accounting services. Do a web search and

examine your local telephone book to find (a) a sign company and (b) an accountant who is willing to provide its product and services in a barter transaction for the product or service of your business.

MINI-CASE BULLTUFF STOCK TRAILERS, INC. Hal Carrier, of Bulltuff Stock Trailers, Inc., has asked you for help. In the last four months, he has had several checks written to suppliers that were refused by his bank because of nonsufficient funds. Now his main supplier, Alcoa Aluminum Supply Co., has cut off credit. “We’re sorry, Hal,” Alcoa’s credit officer said, “but we simply cannot keep accepting your checks. Every time one bounces, it costs us at least $100 combined in processing fees and the cost of our internal accounting. You simply will have to pay cash or bring a cashier’s check for future purchases.” Hal simply cannot understand why his checks keep bouncing. “We’ve plenty of sales,” he said, “and our customers pay pretty much as agreed. Right now, I have only one customer who is as much as 60 days past due. My accountant, Brill Yant, assures me that our cash balance never goes negative. So why are my checks bouncing?” To try to understand Hal’s problem and to advise him how to correct it, you have collected the following information about Hal’s business: Cash sales are 10 percent of total sales. Credit card sales are 10 percent of total sales and are collected the week following the sale. The credit card provider deducts 2.5 percent of the gross amount of each credit card sale. (For example, on a $100 sale, $2.50 is deducted.) Page 500 Sales on account are 80 percent of all sales. All credit sales are to dealers. Terms for dealers are “30-30-30,” that is, three equal payments made in each of the three months following the sale. Payments are considered late if they’re not received by the tenth of the month in which they are due. Direct materials, primarily aluminum, are 60 percent of the cost of building a trailer. Before credit was cut off, Bulltuff paid 30 percent on delivery and the remainder in 30 days. Now it must pay cash on delivery. Total cost of direct labor is 15 percent of the cost of building a trailer. Workers are paid each Friday for work performed the previous week. Withholding and employment taxes are paid each Friday, also. Variable costs combined (e.g., materials and labor) are 50 percent of gross sales. Fixed costs are not allocated to the cost of trailers but are expensed evenly across the year. All other costs combined are treated as fixed costs, and total $1 million per year. Bulltuff leases its building and equipment and has no depreciation. Sales for the year were originally projected to be $2,450,000. However, given the current growth in sales, Hal now estimates that sales will be $5,000,000. Sales for the first four months of the year have been: January $208,000 February 261,000 March 293,000 April 328,000 CASE DISCUSSION

QUESTIONS What is causing Hal's cash flow problems? Develop a plan to address the problems.

APPENDIX: Reconciling Bank Balances with Company Book Balances 13-6 Reconcile bank and company book balances. Key to managing your daily cash flow is knowing how much cash is available to you in your bank account at that moment. Some banks report available balances only once a day, so that amount can be misleading. To get a more realistic number, you need to reconcile the differences between bank and book balances to know how much cash is currently available and how much will soon be available for your business needs. Most small business managers concentrate their attention on maintaining a positive book balance and assume that this means there will be an adequate available balance. However, when this assumption is not correct, it can lead to a cash flow crisis. Company and Bank Cash Balances The balance of the company's cash account and the balance that the bank shows for the company's account are almost always different from each other. Sometimes the difference is significant. This happens because of the difference in timing and amount of entries that are made into the business accounting program, and the actual deposits received and disbursements made by the bank. The company book balance is the name given to the sum of the company's internal accounting record of all transactions that affect cash. This account includes records of all inflows of cash, such as cash from sales, receipts on receivables, and checks received from customers. The cash account also includes records of all outflows of cash, such as checks written to pay for wages, salaries, inventory, services, taxes, and so on. The difference between inflows of cash and outflows of cash is called either company book balance, or simply book balance. Today it is common for many payments to be made directly to your bank from your customers or from your bank to your suppliers. These payments may be set to pay automatically. Thus, you may not know exactly when or how much is transferred by the bank. This is also true when you accept payments by credit card. The company's books will show the payment as of the day the card was swiped. The bank, however, will not receive the payment for up to three working days. Also, the payment that the bank receives will be smaller than what was swiped because of the fees charged by the credit card company. Now let us consider the bank's side. The bank ledger balance is the name given to the bank's accounting system for all recognized transactions that affect the account including deposits, electronic transfers, service fees, and checks presented to the bank for payment. However, just as a company book balance may differ significantly from the actual value of cash of the firm, a bank ledger balance may vary significantly from the actual value of cash that the bank is holding for the depositor because of delays in collecting deposits and delays in making cash transfers. The key measure is called the bank available balance,

which is the actual cash value of the account and can vary significantly from the ledger balance. The bank available balance is the amount of money that has been received from or on behalf of the customer less all amounts of money that have actually been paid out of the depositor's account by the bank. Bank policies, such as how long checks are held, or when new deposits are added to your account, determine a great deal of the difference between the two balances. Deposits of cash, electronic transfers, and cash withdrawals result in immediate changes in the available balance because money has been received or disbursed by the bank. Checks, drafts, and automated clearinghouse payments result in receipts or disbursements of money only after some delay. Page 502 Banks differ in how the ledger balance and available balance are used. Some banks will allow established customers to overdraft their accounts by paying a check when the available balance is not sufficient to cover the check amount, although the ledger balance is. The process of reconciling bank balance and book balances is quite simple. There are only two reasons why the balances differ: The bank knows information about your account that you cannot know until the bank tells you. You know information about your account that the bank cannot know, because relevant transactions have not yet reached the bank. Information that the bank knows about your account that you do not know includes (1) the amount of service charges taken from your account, (2) the amount of any direct payments made to your account by your customers, (3) the amount of any interest received or charged, and (4) the amount of any checks that were returned because of nonsufficient funds (NSF). Information that you know about your account that the bank does not know includes (1) the number and value of checks that you have written and mailed but that have not been received by the bank, and (2) deposits that you have mailed or made after bank closing. The process of reconciling the bank and book balances is, therefore, a two-step process: Add (subtract) to the bank balance those things that you know about your account that the bank does not know. Add (subtract) to your book balance those things that the bank knows about your account that you do not know until you receive the bank statement. When this is done the corrected bank balance and the corrected book balance will be identical. Accepting payments by credit card causes significant differences between the bank and book balances for three reasons: Your business will record the gross amount of each credit card sale, while the credit card service provider will deposit to your account the sale amount less the credit card service fee. Your business will show the amount of the sale deposited on the date of the sale, while the service provider will take up to three working days to actually make the deposit to your account. Credit card clearing services also will reduce the amount deposited, or will charge back the amount, removing it from the business's account in the event of fraud or customer challenge. Similar patterns of the timing and the amounts of various deposits, fees, and transfers exist for other electronic transactions. A bank may accept payment, charge a handling fee, and deposit only the net

amount, or it may deposit the gross amount and show a separate charge for handling fees. Regardless, the use of electronic payment systems, of all types, creates significant differences between bank and book balances. Why go to all this trouble? Because reconciling differences in the bank and book balances serves four purposes: Reconciliation gives you a way to estimate the bank's available balance for the purpose of managing your cash flows. Regular reconciliation of bank and book balances identifies any mistakes that were made by either the bank or by your own bookkeeper—and those mistakes happen. Performing a reconciliation checks the accuracy of both the bank and business records, providing an accurate statement of the value of cash held by the business. A reconciliation lets you know about items on the bank statement that would not otherwise be included in the business's accounting records.